# Appendix G Wetland Delineation Report

7 A
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### WETLAND DELINEATION REPORT

### VEOLIA ES EMERALD PARK LANDFILL

### CITY OF MUSKEGO, WAUKESHA COUNTY, WISCONSIN

December 1, 2005 Revised December 8, 2008



NRC Project # 05-235

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#### WETLAND DETERMINATION AND DELINEATION REPORT

#### Veolia ES EMERALD PARK LANDFILL CITY OF MUSKEGO WAUKESHA COUNTY, WISCONSIN

December 1, 2005 Revised December 8, 2008

Prepared For:

Mr. Jay Warzinski, P.E. Veolia ES – Emerald Park Landfill, LLC W144 S6350 College Court Muskego, Wisconsin 53150

Prepared By:

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NRC Project # 05-235

Jerry Kelly

Senior Scientist

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#### INTRODUCTION

Natural Resources Consulting (NRC) conducted a wetland determination and delineation on the Veolia ES Emerald Park Landfill Property (the "Property") on October 25-28, 2005 and November 29, 2005. The Property includes approximately 395 acres in Section 36, Township 5 North, Range 20 East, Waukesha County, Wisconsin. The Property lies in the southeastern part of the City of Muskego, Wisconsin (Figure 1).

The objective of the wetland determination and delineation was to provide an estimate of the extent and spatial arrangement of wetlands within the Property. Most wetlands are considered waters of the U.S. and are therefore subject to regulation under the Clean Water Act (CWA). Specifically, non-isolated wetlands are regulated under Section 404 of the CWA and the jurisdictional regulatory authority lies with the United States Army Corps of Engineers (USACE). Additionally, the Wisconsin Department of Natural Resources (WDNR) has regulatory authority over wetlands, navigable waters, and adjacent lands under Chapter 30 Wisconsin State Statutes, Act 6, and NR 103 Wisconsin Administrative Code. The City of Muskego and/or Waukesha County may have additional regulatory authority through shoreland or wetland zoning ordinances.

NRC understands the requested services to include:

- 1. Complete wetland determinations within the Property.
- 2. Flag wetland/upland boundaries within the Property.
- 3. Survey wetland boundaries with a GPS.

#### **METHODS**

#### **Wetland Delineation**

The initial steps in the wetland determination and delineation process included a review of the following documents:

- Natural Resources Conservation Service (NRCS), formerly the Soil Conservation Service (SCS), excerpts from Soil Survey of Milwaukee and Waukesha Counties, Wisconsin;
- NRCS list of hydric soils for Waukesha County;
- U.S. Geological Survey 7.5 minute Wisconsin quadrangle map; and
- The Wisconsin Wetland Inventory (WWI) Map for the area.

These documents provide information on where wetlands have been previously identified or areas that possess a high likelihood of wetlands occurring. These initially identified areas were then visited to make on-site determinations, and where necessary, complete delineations of the uppermost wetland boundary.

Wetland determinations were made using the criteria and methods outlined in the USACE Manual (USACE 1987), subsequent guidance documents (USACE 1991, 1992), Guidelines for Submitting Wetland Delineations in Wisconsin to the St. Paul District Corps of Engineers (USACE 1996), and the Basic Guide to Wisconsin's Wetlands and their Boundaries (Wisconsin Department of Administration Coastal Management Program 1995). The U.S. Army Corps of Engineers and U.S. Environmental Protection Agency wetland definition is included below.

"Areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions."

The State of Wisconsin wetland definition differs slightly; however, their code also cites the usage of the 1987 Manual.

Wetland determinations were made using the three criteria of assessment approach defined in the 1987 Manual. According to procedures described in this Manual, areas that under normal circumstances reflect a predominance of hydrophytic (water loving) vegetation, hydric soils, and wetland hydrology (e.g., inundated or saturated soils) are considered wetlands. Since the wetland boundaries at the Property were relatively abrupt, the Routine Method for Small Areas was employed.

A preliminary reconnaissance of the Property was used to determine the general topography and plant communities at the Property and to identify suitable locations for sampling transects. In general, transects are linear features aligned perpendicular to site contours such that they cross representative locations of wetlands and adjacent uplands. The three criteria were evaluated by placing an observation point within a representative location of each plant community encountered along the transect.

#### At each observation point:

- 1. The presence or absence of normal circumstances was determined.
- 2. The plant community was characterized by identifying dominant plant species using the "50/20" rule. For each stratum in the plant community, dominant species are the most abundant (when ranked in descending order of abundance and cumulatively totaled) that immediately exceed 50% of the total dominance measure for the stratum, plus any additional species comprising 20% or more of the total dominance measure for the stratum.

Wetland indicator status is ranked by percent probability of the species occurrence in wetlands as follows:

OBL = Obligate Wetland, occurs with an estimated 99 percent probability of occurrence in wetlands

FACW = Facultative Wetland, estimated 67 to 99 percent probability of occurrence in wetlands

FAC = Facultative equally likely to occur in wetlands and non-wetlands (34 to 66 percent probability)

FACU = Facultative upland, 67 to 99 percent probability in non-wetlands, 1 to 33 percent in wetlands

UPL = Obligate Upland, greater than 99 percent probability in non-wetlands in this region

NI = No indicator, insufficient information available to determine an indicator status

Wetland indicator status can be modified with a positive sign (+) to indicate a frequency toward the higher end of the category, while a minus sign (-) indicates a frequency toward the lower end of the category (Resource Management Group, 1995);

- 3. Soil pits were dug to a depth of at least 18 inches when possible, and the soil was evaluated for hydric soil characteristics; and
- 4. Hydrology was assessed by observing for primary (i.e., inundation, saturation within the root zone, water marks, etc.) and secondary (i.e., oxidized pore linings, water stained leaves, etc.) indicators of wetland hydrology.

The transects were initiated at a representative location within each wetland to first complete the wetland determination. The uppermost wetland boundary was identified once an upland site was encountered along the transect. The uppermost wetland boundary was flagged using consecutively numbered surveyors flagging and mapped with Global Positioning System (GPS) equipment. Subject to weathering, the flagging will remain in the field for use during a USACE / WDNR site visit and for a guide during construction.

#### RESULTS

Table 1 is a list of the soils mapped in the *Soil Survey of Milwaukee and Waukesha Counties, Wisconsin*, for the Property (Figure 2). Soils listed as hydric within Waukesha County are shown in **bold** print.

Table 1. Soil Map Units Identified at the Property.

Symbol	SOIL MAP UNIT	CLASSIFICATION	DRAINAGE CLASS	HYDRIC PART
AsA	Ashkum silty clay loam, 0-3% slopes	Typic Haplaquolls	poorly drained	whole soil unit
EsA	Elliott silt loam, 1-3% slopes	Aquic Argiudolls	somewhat poorly drained	inclusions for Ashkum soils
FoB	Fox loam, 2-6% slopes	Typic Hapludalfs	well drained	none
HeB	Hebron loam, 2-6% slopes	Typic Hapludalfs	well drained	none
HeC2	Hebron loam, 6-12% slopes, eroded	Typic Hapludalfs	well drained	none
MeB	Markham silt loam, 2-6% slopes	Mollic Hapludalfs	well drained	none
MgA	Martinton silt loam, 1-3%	Aquic Argiudolls	somewhat poorly	inclusions
	slopes		drained	for Montgomery soils
Mzb	Montgomery silty clay loam	Typic Haplaquolls	poorly drained	whole soil unit
MzdB	Morley silt loam,2-6% slopes	Typic Hapludalfs	well drained	none
MzdB2	Morley silt loam,2-6% slopes, eroded	Typic Hapludalfs	well drained	none
MzdC2	Morley silt loam,6-12% stopes, eroded	Typic Hapludalfs	well drained	none
Mzg	Muskego muck	Limnic Medisaprists	very poorly drained	whole soil unit
Na	Navan silt loam	Typic Argiaquolls	poorly drained	whole soil unit
Oc	Ogden muck	Terric Hapludalfs	poorly drained	whole soil unit
ShB	Saylesville silt loam, 2-6% slopes	Typic Hapludalfs	well drained	none
ShB2	Saylesville silt loam, 2-6% slopes, eroded	Typic Hapludalfs	well drained	none
ShC2	Saylesville silt loam, 6-12% slopes, eroded	Typic Hapludalfs	well drained	none

The Wisconsin Wetland Inventory (WWI) shows wetlands south, southwest, and west of the active landfill (Figure 3). Three large areas are labeled as a mixed vegetation community of scrubshrub/emergent wetland on wet soils (S3/E2K). An additional large area is marked as emergent wet meadow with either wet soil or standing water (E2H, E2K). Three smaller areas northwest and southwest of the active landfill are also marked as wet meadow (E2H, E2K, E2Kf).

The topography in the vicinity of the Property is generally flat, with natural topographic highs of greater than 800 feet above mean sea level (MSL) in the southeastern corner and the northeastern side of the Property. Surface water drainage is to the northwestern corner of the Property, and is accomplished by sheet flow and agricultural drainage ditches. Surface water leaving the Property is by an unnamed drainageway that discharges to Big Muskego Lake approximately 1.5 miles downstream of the Property. Big Muskego Lake is part of the Illinois-Fox drainage basin, which drains to the Mississippi River by way of the Illinois River.

An onsite wetland determination and delineation was completed on October 25-27, 2005 by Jerry Kelly and Rachel Veltman of NRC, on October 28, 2005 by Jerry Kelly and Allison Oberc of NRC, and Jerry Kelly on November 29, 2005. USACE data sheets were completed for sample points along transects through the wetland boundary plant communities, and are included in Appendix A. The transect and sample point locations were chosen within representative plant communities and at various landscape positions.

NRC determined boundaries for eight jurisdictional wetlands on the Property (Figure 4). Numbering of wetlands was kept consistent with that of a previous wetland delineation performed at the Property (JJR, Inc., 1996). Wetlands 1 and 2 described in that report have since been enhanced as entrance ponds to the Veolia ES Emerald Park Landfill and are not classified as jurisdictional wetlands. The area of Wetland 5 was investigated as part of the current project, but evidence of a wetland was not observed (data form for W5-P1 in Appendix A). Wetland 8, formerly separated from Wetland 9 by property belonging to others, is included as part of Wetland 9 because the client now possesses additional lands.

Wetlands additional to those described in the 1996 report are included in this report. Wetland 6A, west of Wetland 6, appears to have resulted from a change in land use activities. Wetlands 10 and 11 are on lands not owned by Veolia ES Emerald Park Landfill at the time of the earlier investigation.

#### Wetland 3

Wetland 3 is a large wet meadow and scrub-shrub complex in the southeastern part of the Property. A reed canary grass (*Phalaris arundinacea*) monoculture dominates most of the wet meadow parts of this wetland. Other wet meadow areas support prairie cordgrass (*Spartina pectinata*) and forbs, such as giant goldenrod (*Solidago gigantea*) and grassleaf goldenrod (*Euthamia graminifolia*). A pond in the northeastern part of Wetland 3 is surrounded by mature hardwood trees, especially silver maple (*Acer saccharinum*). Scrubshrub areas are dominated by sandbar willow (*Salix exigua*) and gray and red osier dogwoods (*Cornus racemosa*, *C. stolonifera*). Indicators of hydric soils include a thick dark surface layer (Indicator A12 in National Technical Committee for Hydric Soils, *Field Indicators of Hydric Soils in the United States*, Version 5.9, 2003) and a loamy gleyed matrix (Indicator F2). Indicators of wetland hydrology are limited to secondary indicators, including the FAC-neutral test and local soil survey data.

Uplands adjacent to Wetland 3 are generally on noticeably higher ground, including landfill areas, U.S. Highway 45, and active and fallow fields. Active fields are currently (October 2005) planted in winter wheat (*Triticum aestivum*). Plant communities of fallow fields and landfill slopes are dominated by Kentucky bluegrass (*Poa pratensis*) and forbs such as Canada goldenrod (*Solidago canadensis*) and dandelion (*Taraxacum officinale*). Generally, soils at upland sampling locations did not exhibit indicators of hydric soils. Wetland hydrology indicators were not observed at upland sampling locations.

#### Wetland 4

Wetland 4 is a large wet meadow and scrub-shrub complex in the south-central part of the Property. Reed canary grass dominates the plant community in much of the wet meadow parts of Wetland 4. Prairie cordgrass and prairie forbs, including grassleaf goldenrod and sawtooth sunflower (*Helianthus grosseserratus*) dominate a wet meadow on the northern part of Wetland 4. The scrub-shrub plant community includes sandbar willow, dogwoods, and cockspur hawthorn (*Crataegus crus-galli*). Indicators of hydric soils include a depleted matrix and thick dark surface layer (Indicators A12 and F3) and the presence of muck soils (Indicator A1). Indicators of wetland hydrology are limited to secondary indicators, including the FAC-neutral test and local soil survey data.

Uplands adjacent to Wetland 4 generally grade downward to the wetland boundaries. Lands adjacent to Wetland 4 include agricultural fields planted in winter wheat and soybeans (*Glycine max*), landfill slopes, and fallow fields dominated by oldfield vegetation, including Canada and giant goldenrod, Kentucky bluegrass, tall fescue (*Festuca arudinacea*), reed canary grass, and dandelion. Generally, soils at upland sampling locations did not exhibit indicators of hydric soils. Wetland hydrology indicators were not observed at upland sampling locations.

#### Wetland 6

Wetland 6 is a small, isolated depression in an agricultural field. The plant community is a wet meadow dominated by reed canary grass and saplings of sandbar willow. Indicators of hydric soils include a loamy gleyed matrix (Indicator F2). Indicators of wetland hydrology are limited to secondary indicators, including the FAC-neutral test and local soil survey data.

Wetland 6 is surrounded by an agricultural field most recently planted in soybeans. Weeds in the field are indicative of upland conditions, and include dandelions and Queen Anne's lace (*Daucus carota*). Soils at upland sampling locations did not exhibit indicators of hydric soils, nor were wetland hydrology indicators observed.

#### Wetland 6A

Wetland 6A is a small depression at the edge of an agricultural field. The plant community is a wet meadow dominated by hybrid cattail (*Typha* x *glauca*) and barnyard grass (*Echinochloa crusgalli*). Forbs in Wetland 6A are also indicative of wetland conditions, and include swamp tickseed (*Bidens comosus*) and water plantain (*Alisma subcordatum*). Indicators of hydric soils include a depleted layer below a dark surface soil layer (Indicator A11). Indicators of wetland hydrology are limited to secondary indicators, including the FAC-neutral test and local soil survey data.

Wetland 6A is bordered on the west, south, and east by agricultural fields formerly planted in soybeans and alfalfa (*Medicago sativa*). Weeds in the field are indicative of upland conditions, and include dandelions and Queen Anne's lace. Soils at upland sampling locations did not exhibit indicators of hydric soils, nor were wetland hydrology indicators observed.

#### Wetland 7

Wetland 7 is a small, isolated depression at the edge of an agricultural field. The plant community is a wet meadow dominated by river bulrush (*Scirpus fluviatilis*) and field nutsedge (*Cyperus esculentus*), although remnants of soybean plants are present to indicate that most of this wetland was farmed in 2005. Indicators of hydric soils include a depleted layer below a dark surface soil layer (Indicator A11). Indicators of

wetland hydrology are limited to secondary indicators, including the presence of water-stained leaves, the FAC-neutral test and local soil survey data.

Wetland 6 is bordered by an agricultural field most recently planted in soybeans on the west and south. Weeds in the field are indicative of upland conditions, and include dandelions and Queen Anne's lace. The northern and eastern sides of Wetland 7 support oldfield vegetation, including squirreltail grass (*Hordeum jubatum*), heath aster (*Aster ericoides*), and dandelions. Soils at upland sampling locations did not exhibit indicators of hydric soils, nor were wetland hydrology indicators observed.

#### Wetland 9

Wetland 9 covers much of the northwestern part of the Property. This wetland supports an extensive wet meadow plant community, much of which is a reed canary grass monoculture. In places, sedge species (*Carex stricta*, *C. lacustris*) and sawtooth sunflower are supported with the reed canary grass. A large wooded hill forms an upland island in the center of Wetland 9. The hill is topographically distinct from the surrounding wetland and supports northern pin and bur oaks (*Quercus ellipsoidalis*, *Q. macrocarpa*), with a perimeter band of shrubs that includes cockspur hawthorn and prickly ask (*Xanthoxylum americanum*). Indicators of hydric soils in the wetland include a depleted layer below a dark surface soil layer or a thick dark surface layer (Indicators A11, A12). Indicators of wetland hydrology are limited to secondary indicators, including the presence of water-stained leaves, the FAC-neutral test and local soil survey data.

The southern part of Wetland 9 has been farmed for soybeans in 2005. Weeds growing among the soybean plants are reed canary grass. This part of Wetland 9 has a muck soil (Indicator A1, Histosol). Indicators of wetland hydrology are limited to secondary indicators, including the FAC-neutral test and local soil survey data.

Wetland 9 is bordered by agricultural fields and lawn areas. The agricultural fields are planted in soybeans, and the lawns in Kentucky bluegrass. Weeds in the fields and lawns are indicative of upland conditions, and include Canada goldenrod, dandelions, and Queen Anne's lace. Soils at upland sampling locations did not exhibit indicators of hydric soils, nor were wetland hydrology indicators observed.

#### Wetland 10

Wetland 10 is a large wet meadow and scrub-shrub area in the southwestern part of the Property. The wet meadow plant communities, which comprise most of the wetland, are dominated by reed canary grass, with few other plant species present. A scrub-shrub plant community, centered along a drainageway that extends through a part of the wetland, is dominated by red osier and gray dogwoods and sandbar willows. The wetland soils are characterized by a thick dark surface layer (Indicator A12). Indicators of wetland hydrology are limited to secondary indicators, including the FAC-neutral test and local soil survey data.

Uplands adjacent to Wetland 10 include agricultural and fallow fields. The agricultural fields are planted in winter wheat, although remnants of an earlier soybean crop remain. Fallow field areas are dominated by Kentucky bluegrass and Canada goldenrod. Soils at upland sampling locations did not exhibit indicators of hydric soils, nor were wetland hydrology indicators observed.

#### Wetland 11

Wetland 11 is a wet meadow on the western side of the Property surrounded by an agricultural field. The wet meadow plant community is dominated by prairie cordgrass, hummock sedge, and wetland forbs, such as giant and Riddell's goldenrods (*Solidago gigantean*, *S. riddellii*), sawtooth sunflower, and side-flowering

aster (*Aster lateriflorus*). Indicators of hydric soils in the wetland include a depleted layer below a dark surface soil layer (Indicator A11). Indicators of wetland hydrology are limited to secondary indicators, including the FAC-neutral test and local soil survey data.

The upland surrounding Wetland 11 is planted in winter wheat, although remnants of an earlier soybean crop remain. Soils at upland sampling locations did not exhibit indicators of hydric soils, nor were wetland hydrology indicators observed.

#### Wetland 12

Wetland 12 is a large wet meadow and shallow marsh area in the southwestern part of the Property. The wet meadow plant communities, which comprise most of the wetland, are dominated by reed canary grass, with few other plant species present. The wet meadow is a plant community dominated by hybrid cattail in a low area of the western part of the wetland. Small areas of scrub-shrub plant communities are scattered in the wetland, and are dominated by red osier and gray dogwoods and sandbar willows and young green ash trees (*Fraxinus pennsylvanica*). The wetland soils are characterized by a thick dark surface layer (Indicator A12). Indicators of wetland hydrology are limited to secondary indicators, including the FAC-neutral test and local soil survey data.

Uplands adjacent to Wetland 12 include agricultural fields and wooded mounds. The agricultural fields are planted in winter wheat and alfalfa, although remnants of an earlier soybean crop remain. The wooded topographically high areas contain plant communities dominated by oak trees, including black oak (*Quercus velutina*), northern pin oaks, and bur oaks. Soils at upland sampling locations did not exhibit indicators of hydric soils, nor were wetland hydrology indicators observed.

#### **WDNR Field Meeting**

Minutes from the meeting betweet Mr. Jay Warzinski and Mr. James Dunham; Veolia ES Emerald Park Landfill, LLC, Mr. Brian Karczewski, Natural Resources Consulting, Inc., Mr. Doug Genthe and Mr. Mark Torresani; RMT, Inc. and Ms. Pamela Schense of the Wisconsin Department of Natural Resources held on November 12, 2007 are included in Appendix B. The purpose of the meeting was to review

- 1) The wetland boundaries within and adjacent to the proposed expansion footprint; and
- 2) The farm ditches within and adjacent to the proposed expansion footprint.

General concurrence regarding the wetland boundaries was obtained. Small changes to the north side of wetland W-4 needed to be made. These changes are provided on Figure 4. Questions regarding a previously delineated area, wetland W-5, were addressed in the field. Ms. Schense agreed that there did not appear to be any indicators of wetland in the area. However, she requested that a farm service agency crop slide review be completed to show that the area was consistently farmed and that signatures were not present on a consistent basis. If so, she will consider the area upland.

Ms. Schense agreed with determinations presented in the field that Pond P-6 is not wetland. This area is now considered non-navigable and non-wetland and does not require further evaluation during the practical alternatives analysis process under NR 103.

Ms. Schense agreed to previously marked locations of navigability for ag-ditch D-4, and NRC's professional opinion of where navigability starts for D-2 (approximately 240 feet south of the 90 degree bend in D-2). These points of beginning of navigability are shown on figure 4.

Wetland Determination and Delineation City of Muskego, Waukesha County, Wisconsin NRC Project # 05-235

#### **FSA Aerial Review**

At the request of Ms. Pamela Schense, an FSA slide review was completed for the site with particular attention placed on the area previously defined as wetland W-5. The results of this review are provided in Appendix C.

In summary, significant indicators of wetness signature were viewed on every aerial collected from 1990 through 2002. No signatures of wetness were observed in aerials taken after 2002. The construction of a compost facility to the west of wetland W-5 in 2000 (please refer to the 2000 aerial) caused a "new normal circumstance" in site drainage that caused the recent shift in wetness signatures observed on aerials taken from 2002 through 2006.

#### Other Environmental Considerations

This report is limited to the identification of state and/or federally regulated wetlands. In addition, there may be other regulated environmental features within the Property. These environmental features may include but are not limited to historical or archeological features, endangered or threatened species, designated environmental corridors, floodplains, and/or navigable waters.

Prior to beginning work at this site or disturbing or altering wetlands, waterways, or adjacent lands in any way, NRC strongly recommends that the owner obtain the necessary permits or other agency regulatory review and concurrence with regard to the proposed work in order to comply with applicable regulations. NRC would be happy to assist with any additional resources inventory or identification work at your request, to the extent that the work is within our range of expertise.

#### **CONCLUSIONS**

Natural Resources Consulting (NRC) conducted a wetland determination and delineation on the Veolia ES Emerald Park Landfill Property (the "Property") on October 25-28, 2005 and November 29, 2005. The Property includes approximately 395 acres in Section 36, Township 5 North, Range 20 East, Waukesha County, Wisconsin. The Property lies in the southeastern part of the City of Muskego, Wisconsin.

The objective of the wetland determination and delineation was to provide an estimate of the extent and spatial arrangement of wetlands within the Property.

NRC identified and surveyed by GPS nine wetlands on the Property. Wetlands 3, 4, 10, and 12 are large wet meadows, dominated by reed canary grass, with scrub-shrub areas. Wetland 9 is a large wet meadow dominated by a reed canary grass monoculture. Wetlands 6, 6A, and 7 are small (each less than ¼-acre) isolated depressions in an agricultural field. Wetland 11 is a wet meadow with a diverse plant community in an agricultural field.

This delineation identified the wetland boundary according to current federal and state guidelines. The city or county may restrict land use in close proximity to the wetlands through setbacks, zoning, buffers or environmental corridors.

The information provided regarding wetland boundaries is an estimate of the wetland boundary and the opinions presented are best estimates of the conditions at the time the wetlands were viewed. The ultimate decision on the boundaries defining regulatory jurisdiction over wetlands rests with the USACE and, in some cases, the WDNR, or a local unit of government. As a result, there may be adjustments to boundaries based upon review of a regulatory agency. An agency determination can vary from time to time depending on various factors including, but not limited to precipitation patterns and the season of the year. In addition, the physical characteristics of the site can change with time, depending on the weather, vegetation patterns, drainage, activities on adjacent parcels, or other events. Any of these factors can change the nature and extent of wetlands on the site. It is recommended the Client obtain an opinion and authority from regulating government agencies before proceeding with any development or utilization of the Property. If the Client proceeds to change, modify or utilize the Property in question without obtaining authorization from the regulating governmental agency, it will be done at the Client's own risk and Natural Resources Consulting, Inc. will not be responsible or liable for any resulting damages.

#### REFERENCES

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Resource Management Group, National List of Plant Species that Occur in Wetland Region 3, North Central, 1995.

United States Army Corps of Engineers (USACE), Corps of Engineers Wetlands Delineation Manual, 1987.

USACE, Questions and Answers on the 1987 Manual, October 7, 1991.

USACE, Clarification and Interpretation of the 1987 Manual, March 6, 1992.

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United States Department of Agriculture (USDA), Soil Conservation Service, Soil Survey of Milwaukee and Waukesha Counties, Wisconsin, issued 1978.

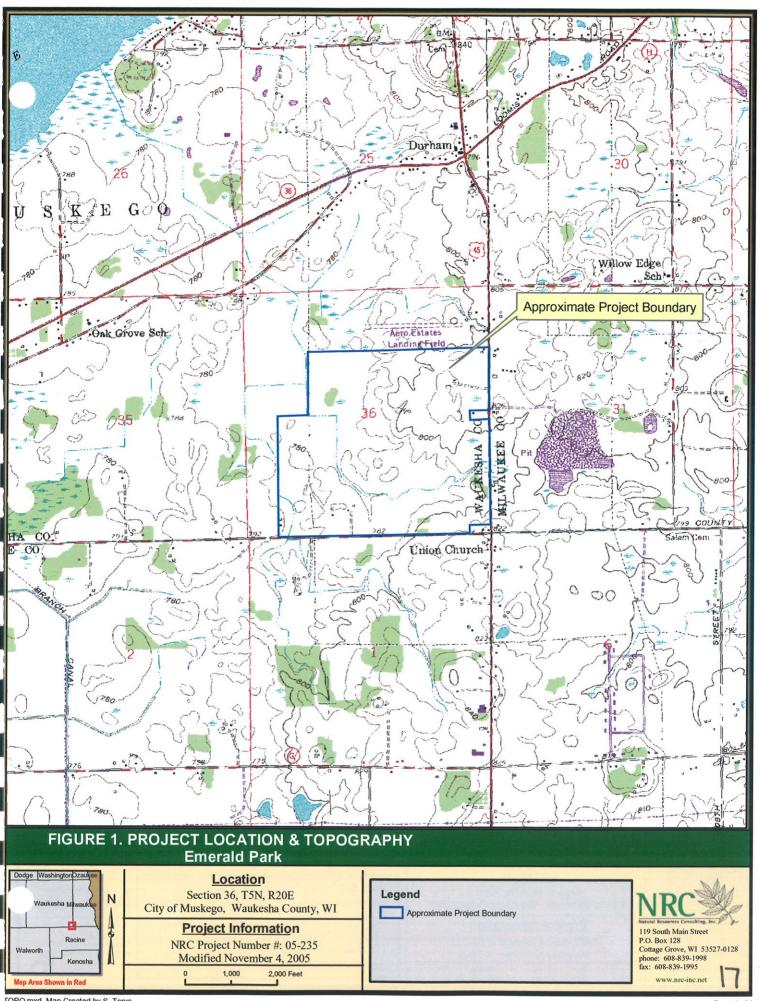
USDA, Natural Resource Conservation Service (NRCS), Hydric Soil List for Waukesha County, Wisconsin.

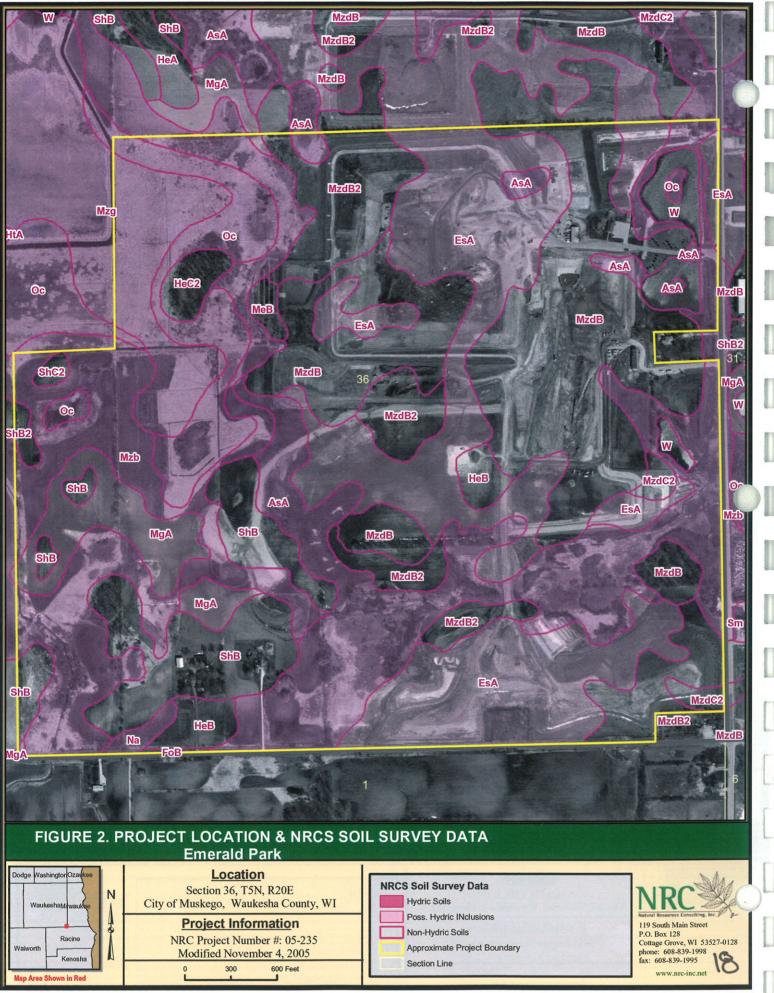
Wisconsin Department of Natural Resources, Wisconsin Wetlands Inventory, Waukesha County, Wisconsin

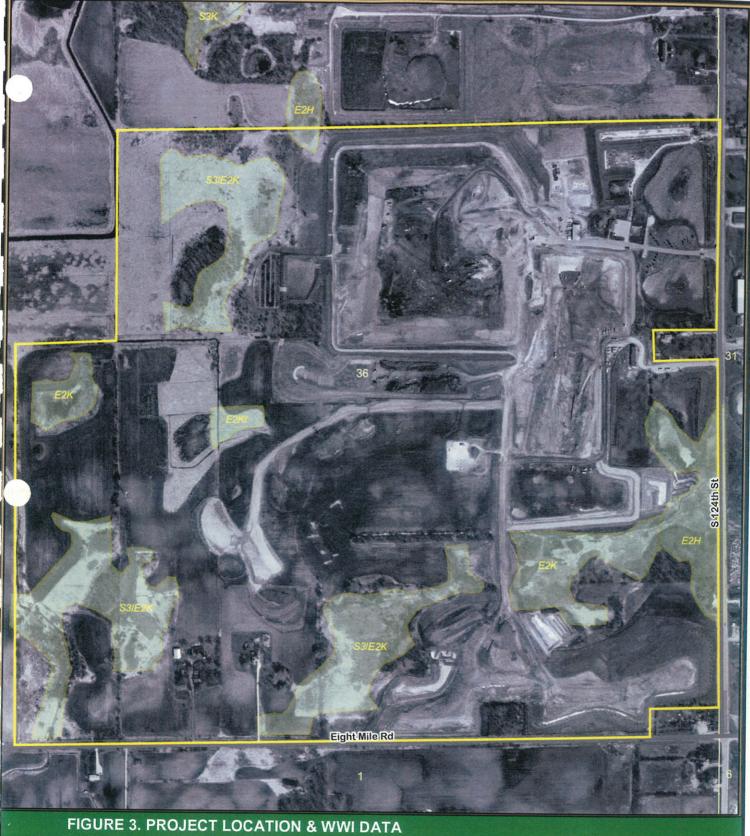
Veolia ES Emerald Park Landfill December 1, 2005 Revised December 8, 2008

Wetland Determination and Delineation City of Muskego, Waukesha County, Wisconsin NRC Project # 05-235

REPORT FIGURES







### **Emerald Park**



#### Location

Section 36, T5N, R20E Town of Muskego, Waukesha County, WI

#### **Project Information**

NRC Project Number #: 05-235 Modified October 31, 2005

600 Feet

#### Legend

Approximate Project Boundary Waukesha WWI



119 South Main Street P.O. Box 128 Cottage Grove, WI 53527-0128 phone: 608-839-1998 fax: 608-839-1995

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Wetland Determination and Delineation City of Muskego, Waukesha County, Wisconsin NRC Project # 05-235

#### APPENDIX A

U.S. ARMY CORPS OF ENGINEERS DATA SHEETS

		(1987 C	OE Weuan	d Delineation Man	uari		·	
Project/Site: Onyx Emo	erald Park	Landfill	<u> </u>		Date:	October 2	26, 2005	
Applicant/Owner: O	nyx Waste	Services			County	:Y	Vaukesha	
Investigator: <u>Jerry Kell</u>	y, Rachel	Veltman			State:	V	Visconsin	
Do normal circumstances	exist on th	is site?	(Ÿ	es) No	Commu	nity ID:	UPLAND	
Is the site significantly dis	turbed (At	ypical Situ	ation)? Y	es (No)	1		***************************************	
Is the site a potential probl	lem area?		Y	es No	Plot ID:	<u> W3</u>	,-Pl	
VEGETATION								
Plant Species	Stratum	% Cover	Indicator	Other Plant Species		Stratum	% Cover	Indicator
1. Poa. pratensis 2. Solidano conodensis	nare	<u>80</u> 20	FAC- FACU	1.Geum macropt 2	•			<u>FACW</u> ÷
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·	Percent of Dominant Species that are OBL, FACW, or FAC  (excluding FAC-).							
Remarks:						······································	<del>~</del>	
romans.								
HYDROLOGY								
Recorded Data (Des   Stream, Lal   X	ce, or Tide ( ographs			Wetland Hy Primary Ind	icators Inund Satu Wate	dated	per 12 inches	
Field Observations:  Depth of Surface Water  Depth to Free Water  Depth to Saturated S	in Pit:		(i) (i) (i) (i) (i)		Drain ndicators (2OxidWateLoca _FAC	2 or more r ized Root ( er-Stained I l Soil Surv -Neutral To	ns in Wetland equired) Channels Leaves ey Data	is
Remarks:								

SOILS

Map Unit Name:						
(Series and Phase): MORLEY SILT LOAM, 2-6% SLOPES			Drainage Class	MD		
Taxonomy	(Subgroup)	c HAPLUBAL	F5	<del></del>	Field Observations Confirm Mapped Typ	oe? (Yes) No
Profile Des	cription					
Depth (inches)	Horizon	Matrix Color Munsell Moist	Concer Color	tration	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0-11		10YR3/2				SICL
11>18		104R5/4	<i></i>			SICL
		**************************************			***************************************	***************************************
			A		1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	
	****	<u></u>	***************************************		***************************************	
Hydric Soil	Indicators:					
( <del></del>	stosol	summarian.		cretions		
Sulfidic OdorOrganic Streak			Content in Surface Layer ing in Sandy Soils	in Sandy Soil		
				l Hydric Soils List onal Hydric Soils List		
	eyed or Low-Chroma C	Colors	Oth			
Remarks:			<del></del>			
romarks.						
   WETLAN	D DETERMINATIO	ıN				
		(Circle)				
Hydrophyt	ic Vegetation Presen	t Yes No				(Circle)
Wetland H	lydrology Present	Yes No		s This Sa	npling Point in a Wetl	land Yes (No)
Hydric So	ils Present	Yes No				
Remarks:						

(1987 COE Wetland Delineation Man	ual)			
Project/Site: Onyx Emerald Park Landfill	Date: October 26, 2005			
Applicant/Owner: Onyx Waste Services	County: Waukesha			
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin			
Do normal circumstances exist on this site? Yes No	Community ID: WETLAND			
Is the site significantly disturbed (Atypical Situation)? Yes No	Transect ID:			
Is the site a potential problem area? Yes No	Plot ID: W3-PZ			
VEGETATION				
Plant Species Stratum % Cover Indicator Other Plant Species	Stratum % Cover Indicator			
1. Phalaris arankinasea H 100 FACIV+ 1. Viburnum le	<u> </u>			
2. Acer saccharinum T 50 FACW 2.				
3	·			
4 4				
5       6       6				
Percent of Dominant Species that are OBL, FACW, or FAC				
(excluding FAC-). 100%				
Remarks:				
HYDROLOGY				
	drology Indicators			
Stream, Lake, or Tide Gauge Primary IndXAerial Photographs	icators Inundated			
Other	Saturated in Upper 12 inches			
No Recorded Data Available	Water Marks			
	Drift Lines			
Field Observations:	Sediment Deposits Drainage Patterns in Wetlands			
Depth of Surface Water: (in) Secondary I	ndicators (2 or more required)			
Depth to Free Water in Pit: > 18 (in)	Oxidized Root Channels			
Depth to Saturated Soil: > /8 (in)	Water-Stained Leaves			
Depth to Saturated Soft. (III)	<ul> <li>X Local Soil Survey Data</li> <li>X FAC-Neutral Test</li> </ul>			
	Other (explain in remarks)			
Remarks:				

SOILS

Map Unit Name:				
(Series and Phase): ASHKUM SILTY CLAY LOAM			Drainage Class	PD
Taxonomy (Subgroup)	(PIC HAPLAQUO	LLLS	Field Observations Confirm Mapped Typ	oe? (Yes) No
Profile Description				
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0718	10YR3/1		باسمي 	SIL
				V-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
Hydric Soil Indicators:				
Histosol	***************************************	Concretions	3	
Histic Epipedon			Content in Surface Layer ing in Sandy Soils	in Sandy Soil
Aquic Moisture Regir Reducing Conditions		Listed on Loca  Listed on Nation  Listed on	l Hydric Soils List onal Hydric Soils List	
Gleyed or Low-Chron		Other	mai ilyano sons Eist	
Remarks: A12 THIC	K DARK SURFA	30 G		
remarks. A 12 Crite		for some		
WETLAND DETERMINAT	TION			
	(Circle)			
Hydrophytic Vegetation Pre	And the same			(Circle)
Wetland Hydrology Present	(Yes) No	Is This Sar	npling Point in a Wetl	and <u>Yes</u> No
Hydric Soils Present	(Yes) No			
Remarks:				

Project/Site: Onyx Emerald Park Landfill	Date: October 26, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin
Do normal circumstances exist on this site? (Yes No	Community ID: WETLAND
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the site a potential problem area? Yes No	Plot ID: <u>W3-P3</u>
VEGETATION 125	
Plant Species Stratum % Cover Indicator Other Plant Sp	ecies Stratum % Cover Indicator
1. Phalaris arundinacea H 95 FACW+ 1. Typha)	: glauca H 5 OBL
22	· · · · · · · · · · · · · · · · · · ·
55	
66	
8	
9 9	
Percent of Dominant Species that are OBL, FACW, or FAC	
(excluding FAC-). \OO%	
Remarks:	
INDROLOGY	
HYDROLOGY  Recorded Data (Describe in Remarks)  Wetla	nd Hydrology Indicators
Stream, Lake, or Tide Gauge Prima	ry Indicators Inundated
X Aerial Photographs Other	Saturated in Upper 12 inches
No Recorded Data Available	Water Marks Drift Lines
Field Observations:	Sediment Deposits
Depth of Surface Water: (in) Secon	Drainage Patterns in Wetlands dary Indicators (2 or more required)
Depth to Free Water in Pit: \(\sime\) \(\sime\) (in)	Oxidized Root Channels Water-Stained Leaves
Depth to Saturated Soil:	Local Soil Survey Data
	FAC-Neutral Test Other (explain in remarks)
Remarks:	

SOILS Map Unit Name: DDASHKUM SILTY CLAY LOAM (Series and Phase): Drainage Class TYPIC HAPLAQUOLLS Field Observations Taxonomy (Subgroup) Confirm Mapped Type? No Profile Description Depth Matrix Color Concentration Concentration Texture, Concretions, (inches) Horizon Munsell Moist Color Abundance/Contrast Structure, etc. 0>18 10YR2/1 7,5 YR5/8 ROOT CHANNELS FEW/PROMINENT 31C1 Hydric Soil Indicators: Histosol Concretions \_Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List \_Gleyed or Low-Chroma Colors Other Remarks: A 12 THICK DARK SURFACE WETLAND DETERMINATION (Circle) Hydrophytic Vegetation Present Yes No (Circle) Wetland Hydrology Present No Is This Sampling Point in a Wetland ) No Hydric Soils Present (Yes) No Remarks:

Project/Site: Onyx Emerald Park Landfill	Date: October 26, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin
Do normal circumstances exist on this site? Yes No	Community ID: UPLAND
Is the site significantly disturbed (Atypical Situation)? Yes No GRAGINI	Transect ID:
Is the site a potential problem area?  Yes (No)	Plot ID: <u>W3-P4</u>
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant Species	s Stratum % Cover Indicator
1. Pholaris arundinacea H 600 FACNY 1. A grostis of 2. Poa protensis H 20 FAC 2. Taraxacum 3. 3. Daucus Co 4. 4. 5. 5. 6. 7. 8. 8.	rigantee H 10 FACW
Stream, Lake, or Tide Gauge  X Aerial Photographs Other No Recorded Data Available  Field Observations:	Hydrology Indicators ndicators Inundated Saturated in Upper 12 inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands y Indicators (2 or more required) Oxidized Root Channels Water-Stained Leaves Local Soil Survey Data FAC-Neutral Test
Remarks: SAMPLE POINT IS APPROX. ZY INCHES HIGHER T	Other (explain in remarks) -HAM ADJACENT WETCAND,

SOILS Map Unit Name: ELLIOTT SILT LOAM SPD (Series and Phase): Drainage Class A QUIC ARGIUDOLLS Field Observations Taxonomy (Subgroup) Confirm Mapped Type? Yes Profile Description Depth Matrix Color Concentration Concentration Texture, Concretions, (inches) Horizon Munsell Moist Color Abundance/Contrast Structure, etc. 0-10 10YR3/1 SICL 10>18 2.54 5/3 516L Hydric Soil Indicators: Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other Remarks: WETLAND DETERMINATION (Circle) Hydrophytic Vegetation Present (Yes) No (Circle) Wetland Hydrology Present Yes (No) Is This Sampling Point in a Wetland Yes Hydric Soils Present (No) Yes Remarks:

(1987 COE Wetland Delineation Man	
Project/Site: Onyx Emerald Park Landfill	Date: October 26, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin
Do normal circumstances exist on this site? Yes No	Community ID: WETLAND
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the site a potential problem area? Yes (No)	Plot ID: <u>W3-P5</u>
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant Species	Stratum % Cover Indicator
li i	
3 Euthania graminifolia H 20 FACW-3.	NAMES OF THE PROPERTY OF THE P
4 4	
5 5	
6 6	
7	
8 8	
9	
Percent of Dominant Species that are OBL, FACW, or FAC	
(excluding FAC-). \ O O %	
Remarks:	
THE PROPERTY OF THE PROPERTY O	
HYDROLOGY Recorded Data (Describe in Remarks) Wetland Hy	ydrology Indicators
Stream, Lake, or Tide Gauge Primary Ind	licators
XAerial Photographs Other	Inundated Saturated in Upper 12 inches
No Recorded Data Available	Water Marks Drift Lines
Field Observations:	Sediment Deposits
	Drainage Patterns in Wetlands Indicators (2 or more required)
Depth to Free Water in Pit:	Oxidized Root Channels
Depth to Saturated Soil: > 18 (in)	Water-Stained Leaves  ∠ Local Soil Survey Data
	FAC-Neutral Test Other (explain in remarks)
Remarks:	X - A

SOILS Map Unit Name: ASHKUM SILTY CLAY LOAM b D (Series and Phase): Drainage Class TYPIC MADLAQUOLLS Field Observations Taxonomy (Subgroup) Confirm Mapped Type? Yes Profile Description Depth Matrix Color Concentration Concentration Texture, Concretions, (inches) Horizon Munsell Moist Color Abundance/Contrast Structure, etc. 10YR 2/1 SICL 6>18 10 (R5/8 PROMINENT EEW Hydric Soil Indicators: Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other Remarks: F 2 LOAMY GLEYED MATRIX WETLAND DETERMINATION (Circle) Hydrophytic Vegetation Present No (Circle) Wetland Hydrology Present No Is This Sampling Point in a Wetland Hydric Soils Present (Yes) No Remarks:

(1987 COE Wetland Delineari	on manual)
Project/Site: Onyx Emerald Park Landfill	Date: October 26, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin
Do normal circumstances exist on this site? Yes No	Community ID: UPLAND
Is the site significantly disturbed (Atypical Situation)? Yes No	Transect ID:
Is the site a potential problem area? Yes No	Plot ID: <u>いるーP</u> 6
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant	Species Stratum % Cover Indicator
1. Tritium aestivum H 80 UPL 1. Sonel	nus amvensis H 10 FACT
	ine max H 5 UPC
	acym officinale H 5 FACU
Percent of Dominant Species that are OBL, FACW, or FAC	
(excluding FAC-). O %	
Remarks:	
HYDROLOGY	
***************************************	etland Hydrology Indicators mary Indicators
X Aerial Photographs	Inundated
Other No Recorded Data Available	Saturated in Upper 12 inches Water Marks
	Drift Lines
Field Observations:	Sediment DepositsDrainage Patterns in Wetlands
Depth of Surface Water: (in) Se	condary Indicators (2 or more required)
Depth to Free Water in Pit:	Oxidized Root Channels Water-Stained Leaves
Depth to Saturated Soil: \(\simegl) \(\frac{18}{2}\) (in)	Local Soil Survey Data
	FAC-Neutral TestOther (explain in remarks)
Remarks:	

SOILS Map Unit Name: b D ASHKUM SILTY CLAY LOAM (Series and Phase): Drainage Class TYPIC HAPCAQUOLLS Field Observations Taxonomy (Subgroup) Confirm Mapped Type? (Yes. No Profile Description Depth Matrix Color Concentration Concentration Texture, Concretions, Munsell Moist (inches) Horizon Color Abundance/Contrast Structure, etc. 10YRZ/1 0>18 SICIL Hydric Soil Indicators: \_Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other Remarks: A 12 THICK DARK SURFACE. WETLAND DETERMINATION (Circle) Hydrophytic Vegetation Present Yes (Circle) Wetland Hydrology Present Yes Yes Is This Sampling Point in a Wetland Hydric Soils Present ∠Yes.> Remarks:

(1987 COE Wetland Delineation Manual)										
Project/Site: Onyx Emerald Park Landfill				Date: October 25, 2005						
Applicant/Owner: Onyx Waste Services				County: V	Vaukesha					
Investigator: <u>Jerry Kell</u> v	, Rachel	Veltman			State: V	Visconsin				
Do normal circumstances e	xist on thi	is site?	Ϋ́	No No	Community ID: \(\frac{1}{2}\)	METLAND				
Is the site significantly dist	urbed (At	ypical Situ	ation)? Ye	es (No	Transect ID:					
Is the site a potential proble	em area?		Ye	es (No)	Plot ID: [/) (j - (*) ' <u>1</u>	1				
VEGETATION				3.5		***************************************				
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratum	% Cover	Indicator			
1. Pholaris arundinacea  2. Solida co canalerisis  3.  4.  5.  6.  7.		2.0	FACU	1. Enthamia gras 2. Sonchus Envi		Amount and Addison fronts.	FAC-			
9		***************************************		9						
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-). 50%  Remarks:										
Recorded Data (Desconder Data (Desconder Data A Desconder Data A Desconder Data A Depth of Surface Water Depth to Saturated Science Desconder Data A Depth to Saturated Science Depth	Primary Indi	Wetland Hydrology Indicators Primary Indicators  Inundated Saturated in Upper 12 inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands Secondary Indicators (2 or more required) Oxidized Root Channels Water-Stained Leaves Local Soil Survey Data FAC-Neutral Test Other (explain in remarks)								
Remarks:										

Map Unit Name:							
(Series and Phase): ASHK	UN SILTY CLA	Drainage Class PD					
Taxonomy (Subgroup)	PIC HAPLAG	Field Observations Confirm Mapped Type? (Yes) No					
Profile Description							
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Texture, Concretions, Abundance/Contrast Structure, etc.				
0-14	10782/1	prest?	5104				
14>18	10YR 2/1	575/3	COMMON/PROPHISENT SICL				
		·	- Annual				
		***************************************					
Hydric Soil Indicators:							
Histosol	·····	Concretions					
Histic Epipedon Sulfidic Odor			Content in Surface Layer in Sandy Soiling in Sandy Soil				
Aquic Moisture Regime		Listed on Local Hydric Soils List					
Reducing Conditions Gleyed or Low-Chroma C	Colors	Other	nal Hydric Soils List				
Remarks: F3 DEPLETED	MATRIX						
WETLAND DETERMINATION	N						
	(Circle)						
Hydrophytic Vegetation Presen	t <u>Yes</u> No		(Circle)				
Wetland Hydrology Present	Yes No	Is This San	Is This Sampling Point in a Wetland (Yes) No				
Hydric Soils Present	(Yes) No		Note to see the second of the				
Remarks:							

<u>                                     </u>		(1907 C	OE WELIAMO	Delineation Manu	(al)			
Project/Site: Onyx Eme	rald Park	Landfill		······································	Date:	October 2	25, 2005	
Applicant/Owner: Or	nyx Waste	Services			County	: <u>V</u>	Vaukesha	
Investigator: Jerry Kelly	, Rachel	Veltman			State:_	γ	Visconsin	
Do normal circumstances e	xist on th	is site?	ζÝe	s) No	Commu	nity ID: 🕓	JPLAND	
Is the site significantly dist	urbed (At	ypical Situ	ation)? Ye	s No	Transec	t ID:		
Is the site a potential proble	em area?		Ye	s (No)	Plot ID:	<u>_ W4-</u>	- P2	
VEGETATION								
Plant Species	Stratum	% Cover	Indicator	Other Plant Species		Stratum	% Cover	Indicator
1. Solidago canadensis	<u> </u>	20	FACU	1. Aster ericoid	es	Н	45	FACU-
2 Solidago gigantea	<u> </u>	20	FACW	2. Melilotus all	) (t	-	In 5	FACU
3. Taraxacum officinale	){	20	FACU	3. Dancus carot	ام	<u>  </u>	45	UPL
4. Festuca arundinaces	14	20	FACU+	4. Geum lacinio	1 Tum	<u>}••}</u>	25	FACW
5. Phalaris arundinakca	j.v.?]	2.0	EVCMY	5	·····			
6		******************	***************************************	6,			<b></b>	
7	<del></del>		•	7			programma-tananunan	
8				8			<del>Victoria de la constanta de la cons</del> tanta de la constanta de	
9				9				
Percent of Dominant Species that		ACW, or FA	С					
(excluding FAC-).	<i>7</i> 5							
Remarks:								
		<del></del>	<u></u>					
HYDROLOGY		-		100		***************************************		
Recorded Data (Desc				Wetland Hyd Primary Indic		dicators		
Stream, Lak X Aerial Photo		Jauge		rimary muk	Inunc	fated		
Other	Prabuo						per 12 inches	
No Recorded Data A	vailable				Wate	r Marks		
						Lines		
Field Observations:		,	•••			nent Depos lage Patteri	sits as in Wetland	s
Depth of Surface Wa	ter:		(in)	Secondary In	dicators (2	2 or more re	equired)	
Depth to Free Water	in Pit:		· 18 (in)	)		ized Root (		
Depth to Saturated So	oil:	>	18 (in)	)		r-Stained L I Soil Surve		
					FAC	Neutral Te	st	
		,	······		Othe	r (explain i	n remarks)	
Remarks:								***************************************
								***************************************

(1987 COE Wetland Delineation Manual) SOILS Map Unit Name: DD ASHKUM SICTY CLAY LOAM (Series and Phase): Drainage Class TYPIC HAPLAQUOLLS Field Observations Taxonomy (Subgroup) Confirm Mapped Type? No Profile Description Depth Matrix Color Concentration Concentration Texture, Concretions, (inches) Horizon Munsell Moist Color Abundance/Contrast Structure, etc. 0-12 104R 2/1 510 Lm 12>24 5 Y 3/2 C.L. Hydric Soil Indicators: Histosol Concretions . Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other Remarks: DEPLETED MATRIX WETLAND DETERMINATION (Circle) Hydrophytic Vegetation Present Yes (Circle) Wetland Hydrology Present Yes (No.) Is This Sampling Point in a Wetland Yes Hydric Soils Present  $\stackrel{\frown}{\checkmark}$ es $\stackrel{\frown}{\sim}$ Remarks:

Project/Site: Onyx Eme	rald Park	Landfill			Date: C	October 2	25, 2005		
Applicant/Owner: On	yx Waste	Services			County:_	V	Vaukesha		
Investigator: Jerry Kelly							Visconsin		
Do normal circumstances e			Ţζ	S No	Commun	ity ID: 〈	JPLAND		
Is the site significantly distr			A 22.22	E Way HOOKK		_			
Is the site a potential proble		, prour orra	Ye	" Photo	Plot ID:_			<del></del>	
	an aroa:				110120				
VEGETATION Plant Species	Stratum	% Cover	Indicator	Other Plant Species	S	Stratum	% Cover	Indicator	
1. Festuca arundingcoa				-	પાંડ	\r-\{	10	FACT	
2. Solidano canadensis				2. Medicago sa	riva	1-1	10	UPL	
3. Agrostis giganitea	] 25- [	20	FACW	3. Taraxa.cum de	Fictuals	11	<u>~5</u>	FACU	
4				4					
5				5					
6				6					
7				7					
8				8				<u></u>	
9.				9					
Percent of Dominant Species that								···	
(excluding FAC-). 330	7a		·	***************************************					
Remarks:									
HYDROLOGY  Recorded Data (Desc	riha in Rar	narke)		Wetland Hyd	Irology Indi	ratore			
Stream, Lak	e, or Tide (	•		Primary Indi	cators				
X Aerial Photo	graphs				InundatedSaturated in Upper 12 inches				
No Recorded Data A	vailable				Water	Marks	v		
					Drift L	ines ent Depos	ita		
Field Observations:			◯ (ir		Draina	ge Patten	ns in Wetland	ls	
Depth of Surface Wa	Secondary In		or more reed Root (						
Depth to Free Water			(ix		Water-	Stained I	eaves		
Depth to Saturated Se	oil:		1 0 (ir	<sup>1)</sup>		Soil Surve Neutral Te			
							n remarks)		
Remarks:									

SOILS Map Unit Name: SPD ELLIOTT SILT LOAM (Series and Phase): Drainage Class A QUIC ARGIUDOLLS Field Observations Taxonomy (Subgroup) Confirm Mapped Type? ( No Profile Description Depth Matrix Color Concentration Concentration Texture, Concretions, (inches) Horizon Munsell Moist Abundance/Contrast Color Structure, etc. 1016 x/ <u>0>18</u> SIL, FILL AREA Hydric Soil Indicators: Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other Remarks: A12 THICK DARK SURFACE SOIL APPEARS TO BE AN AGHROM INCLUSION PROFILE. WETLAND DETERMINATION (Circle) Hydrophytic Vegetation Present Yes (No) (Circle) (Ño) Wetland Hydrology Present Yes Is This Sampling Point in a Wetland Hydric Soils Present /Yes> No Remarks:

(1987 COE Wetland Delineation	on transacti								
Project/Site: Onyx Emerald Park Landfill	Date: October 25, 2005								
Applicant/Owner: Onyx Waste Services	County: Waukesha								
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin								
Do normal circumstances exist on this site? (Yes) No	Community D: WETLAND								
Is the site significantly disturbed (Atypical Situation)? Yes No	Transect ID:								
Is the site a potential problem area? Yes No	Plot ID: WH-PH								
VEGETATION									
Plant Species Stratum % Cover Indicator Other Plant	Species Stratum % Cover Indicator								
1. Poa praterisis H 40 FACT 1. Agrost	is gigantee H 10 FACW								
	novare-angliae H <5 FACW								
3 Euthamia graminifolia H 20 FACW- 3. Aster	pilosus H <5 FACU+								
4 4. <u>Soljda</u>	goriddellii H 25 OBL								
5 5.Scirpi	is pendulus H <5 OBL								
66									
7									
8 8									
9									
Percent of Dominant Species that are OBL, FACW, or FAC									
(excluding FAC-). 67%  Remarks:									
icinates.									
HYDROLOGY									
Recorded Data (Describe in Remarks) We	tland Hydrology Indicators								
Stream, Lake, or Tide Gauge PrinAerial Photographs	mary Indicators								
Other No Recorded Data Available	Saturated in Upper 12 inches Water Marks								
TO Recorded Pala TVallable	Drift Lines								
Field Observations:	Sediment DepositsDrainage Patterns in Wetlands								
[ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	condary Indicators (2 or more required) Oxidized Root Channels								
200000000000000000000000000000000000000	Water-Stained Leaves								
Depth to Saturated Soil: (in)	Local Soil Survey Data FAC-Neutral Test								
	Other (explain in remarks)								
Remarks: TOPOGRAPHIC LOW AREA									

Map Unit Name:			
(Series and Phase): ASHK	UM SIETY CL	Drainage Class	
Taxonomy (Subgroup) TYPIC	- HAPCEQUO	Field Observations Confirm Mapped Type? (Yes) No	
Profile Description			
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Texture, Concretions, Abundance/Contrast Structure, etc.
0-11	104RZ/1		SICL
11>18	<u>545/1</u>	2.576/8	MANY/PROMINENT C
	***************************************	***************************************	
Hydric Soil Indicators:			
Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma C		Organic Strea  Clisted on Loc	Content in Surface Layer in Sandy Soil king in Sandy Soils al Hydric Soils List ional Hydric Soils List
Remarks: A12 THICK S	DARK SURFACE	v на <sup>-</sup>	
WETLAND DETERMINATIO	N		
	(Circle)		
Hydrophytic Vegetation Present	t Yes No		(Circle)
Wetland Hydrology Present	Yes No	Is This Sa	ampling Point in a Wetland (Yes) No
Hydric Soils Present	∠Yes No		
Remarks:			

		(1507 C	O19 WCHAI	d Denneauon man	1417		
Project/Site: Onyx Eme	rald Park	Landfill			Date: Octo	ber 25, 2005	·····
Applicant/Owner: O	nyx Waste	Services			County:	Waukesha	·····
Investigator: <u>Jerry Kell</u>	y, Rachel <sup>v</sup>	√eltman_			State:	Wisconsin	
Do normal circumstances	exist on thi	s site?	$\mathcal{C}_{\mathbf{X}}^{\mathbf{Y}}$	es No	Community I	D: UPLANA	
Is the site significantly dis	turbed (At	ypical Situ	ation)? Y	es (No)	Transect ID:	dia	
Is the site a potential probl	em area?		Y	es (No)	Plot ID: 4	)4-P5	
VEGETATION							
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratu	ım % Cover	Indicator
1. Glyeine max		40	UPL	1.Taranneum off			FACU
2. Medicago sativa	<u></u>	40	UPC	2. Dancis card			UPC
3				3. Solidago car	iedensis 1	1 45	FACU
4				4. Ambrasia ar			FACU
5			<del></del>	5			
6				6			
7				7	<del></del>		
8			***************************************	8			
9			***************************************	9	······	••••••	
Percent of Dominant Species tha		ACW, or FA	С				
(excluding FAC-).	/4		······································			· · · · · · · · · · · · · · · · · · ·	
Remarks:							
I TOTAL OCT		<u> </u>					
HYDROLOGY  Recorded Data (Des	cribe in Rer	narks)		Wetland Hv	drology Indicator	rs	1
Stream, Lal	ce, or Tide (	•		Primary Ind	icators		
X Aerial Phot	ographs			_	Inundated	n Upper 12 inche	
Other  No Recorded Data A	vailable				Saturated i	~ ~	5
					Drift Lines		
Field Observations:					Sediment I		1.
Depth of Surface Wa	ater:	<u> </u>	>(i	n) Secondary I	Drainage P ndicators (2 or m	atterns in Wetlan ore required)	as
Depth to Free Water	in Pit:			n) —	Oxidized R	loot Channels	
Depth to Saturated S		, >	. <7	n)	Water-Stai Local Soil	ned Leaves Survey Data	
-					FAC-Neutr	ral Test	
					Other (exp	lain in remarks)	
Remarks:							

SOILS Map Unit Name: PD ASHKUM SILTY CLAY LOAM Drainage Class (Series and Phase): Field Observations VPIC HAPLAQUOLLS Taxonomy (Subgroup) Confirm Mapped Type? Yes Profile Description Depth Matrix Color Concentration Concentration Texture, Concretions, (inches) Horizon Munsell Moist Color Abundance/Contrast Structure, etc. 10 YR 3/2 0-10 512-10YR578 10>18 SIL Hydric Soil Indicators: Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime \_Listed on Local Hydric Soils List Listed on National Hydric Soils List Reducing Conditions Other Gleyed or Low-Chroma Colors Remarks: WETLAND DETERMINATION (Circle) Hydrophytic Vegetation Present Yes (Circle) Yes Wetland Hydrology Present Is This Sampling Point in a Wetland Yes (No) Hydric Soils Present Yes Remarks:

Project/Site: Onyx Emerald Park Landfill	Date: October 25, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin
Do normal circumstances exist on this site? Yes No	Community ID: WETLAND
Is the site significantly disturbed (Atypical Situation)? Yes No	Transect ID:
Is the site a potential problem area? Yes No	Plot ID: W4-P6
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant Species	Stratum % Cover Indicator
2. 2. 3. Aster firmus 3. 4. 4. Helianthus gros 5. 5. Enthamia gram 6. 7. 7. 8. 8.	iulosa H 5 FACU pinthinaceum H 5 FACU+ ceserratus H 5 FACW+ initolia H 65 FACW-
HYDROLOGY  Recorded Data (Describe in Remarks) Stream, Lake, or Tide Gauge X Aerial Photographs Other No Recorded Data Available  Field Observations:  Wetland Hyder Primary Indicates the second of t	Irology Indicators catorsInundatedSaturated in Upper 12 inchesWater MarksDrift LinesSediment Deposits <drainage in="" patterns="" td="" wetlands<=""></drainage>
Depth to Free Water in Pit:   Depth to Saturated Soil:     Depth to Saturated Soil:	dicators (2 or more required) Oxidized Root Channels Water-Stained Leaves Local Soil Survey Data FAC-Neutral Test Other (explain in remarks)

Map Unit Name:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
(Series and Phase): ASHK	UM SILTY CE	Drainage Class	PD		
Taxonomy (Subgroup) YP1	Taxonomy (Subgroup) TYPIC HARLAGUELLS				e? Yes (No)
Profile Description					4.47
Depth (inches) Horizon	Matrix Color Munsell Moist	Concer Color	tration	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0>12	N7.5/0				MUCK
					•
				P	
Hydric Soil Indicators:		Con			
Histic Epipedon		Hig		Content in Surface Layer	in Sandy Soil
Sulfidic OdorAquic Moisture Regime		_XList		ing in Sandy Soils Hydric Soils List	
Reducing ConditionsGleyed or Low-Chroma C	Colors		ed on Natio	nal Hydric Soils List	
A					
Remarks: A HISTOSOL					,
WETLAND DETERMINATIO	Ν				
	(Circle)				
Hydrophytic Vegetation Presen	- intermedia	j			(Circle)
Wetland Hydrology Present	Yes No		s This San	npling Point in a Wetl	and (Yes) No
Hydric Soils Present	(Yes) No	)			
Remarks:					

Y							~~~~	
Project/Site: Onyx Eme	rald Park	Landfill			Date:	October 2	25, 2005	
Applicant/Owner: Onyx Waste Services					County	<u> </u>	Vaukesha	
Investigator: Jerry Kelly, Rachel Veltman					1		Visconsin	
Do normal circumstances	exist on th	is site?	ζÝ	es No	Commu	nity ID: \	JPLAND	
Is the site significantly dist				es (No)		-		
Is the site a potential probl		) P1001 2100	•	es (Ño)			-P7	
VEGETATION	V222 W1 V47							
Plant Species	Stratum	% Cover		Other Plant Species		Stratum	% Cover	Indicator
1. Triticum aestivum	\ <del></del>	80	U\$1-	1. Taraxacum of	Ficinale	14	10	FACU
2	"			2. Glycine und			10	UPL
3				3			***************************************	************
4			marana and and and and and and and and and	4				
5				5				
6				6				<u></u>
7	,		***************************************	7	<u> </u>			<del></del>
8			ta t	8				
9	<del> </del>		.,,,,	9			,,	
Percent of Dominant Species tha	t are OBL, F	ACW, or FA	.C					
(excluding FAC-).								
Remarks;								
HYDROLOGY								
Recorded Data (Desconded Data (Desconded Data (Desconded Data (Desconded Data (Desconded Data A	, ,	Wetland Hydrology Indicators  Primary Indicators InundatedSaturated in Upper 12 inchesWater Marks Drift Lines						
Field Observations:						nent Depo		30
Depth of Surface Wa	iter:	4.	<u>O</u> (i → 18 (i	n) Secondary I	ndicators (2	or more r		دد
Depth to Free Water	n)		ized Root ( r-Stained I					
Depth to Saturated S	oil:		> 18 (i	n)	FAC	l Soil Surv Neutral To r (explain i	•	
Remarks:						(Sapidiii I	romano,	
								41

Map Unit Name:			3	
(Series and Phase): A SIAN	KUM SILTY CLA	Drainage Class	<i>b D</i>	
Taxonomy (Subgroup)	IC HARLAQUO	Field Observations Confirm Mapped Type	? Yes (No)	
Profile Description				₹ mp/s :
Depth (inches) Horizon		Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0-10	10YR3/2		****	SICL
10>18	<u>545/</u>	5Y5/8	MANY /PROMINENT	CL
	•		***************************************	
Hydric Soil Indicators:				
Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma C	olors	Organic Streaki Listed on Local	ontent in Surface Layer i ng in Sandy Soils Hydric Soils List nal Hydric Soils List	n Sandy Soil
Remarks: All DEPCETS	D BELOW DARK	SURFACE		
WETLAND DETERMINATIO	N			
	(Circle)			
Hydrophytic Vegetation Present	Yes (No			(Circle)
Wetland Hydrology Present	Yes No	Is This San	pling Point in a Wetla	ind Yes No
Hydric Soils Present	(Yes) No			N. S.
Remarks:				

(1987 COL Wettand Delineation Manu	a1)
Project/Site: Onyx Emerald Park Landfill	Date: October 25, 2005
Applicant/Owner: Onyx Waste Services	County:Waukesha
Investigator: <u>Jerry Kelly, Rachel Veltman</u>	State: Wisconsin
Do normal circumstances exist on this site? Yes No	Community ID: WETLAND
Is the site significantly disturbed (Atypical Situation)? Yes No	Transect ID:
Is the site a potential problem area? Yes No	Plot ID: <u>W4-P8</u>
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant Species	Stratum % Cover Indicator
1. Phalaris arundinacea H 80 FACEV+ 1.	
2. Typhax glavea H 20 OBL 2	
li ' V	
4 4	
5 5	
6	
7 7	
8 8	
99	
Percent of Dominant Species that are OBL, FACW, or FAC  (excluding FAC-).	
Remarks:	
HYDROLOGY	
Recorded Data (Describe in Remarks) Wetland Hyd	rology Indicators
Stream, Lake, or Tide Gauge Primary Indic XAerial Photographs	ators Inundated
Other	Saturated in Upper 12 inches
No Recorded Data Available	Water Marks Drift Lines
Field Observations:	Sediment Deposits
Depth of Surface Water: (in) Secondary Inc	Drainage Patterns in Wetlands dicators (2 or more required)
Depth to Free Water in Pit: > 12 (in) —	Oxidized Root Channels
Depth to Saturated Soil: 3 (in)	Water-Stained Leaves KLocal Soil Survey Data
	FAC-Neutral Test Other (explain in remarks)
<u> </u>	
Remarks:	Onor (oxplain in rollars)

SOILS Map Unit Name: ASHKUM SIETY CLAY LOAM DD (Series and Phase): Drainage Class TYPIC HAPLAQUOLLS Field Observations Taxonomy (Subgroup) (No Confirm Mapped Type? Yes **Profile Description** Depth Matrix Color Concentration Concentration Texture, Concretions, (inches) Horizon Munsell Moist Color Abundance/Contrast Structure, etc. N 2.5/0 0>12 MUCK Hydric Soil Indicators: Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other Remarks: A 1 H 157050L WETLAND DETERMINATION (Circle) Hydrophytic Vegetation Present No (Circle) Wetland Hydrology Present No Is This Sampling Point in a Wetland Yes No Hydric Soils Present No Remarks:

Project/Site: Onyx Eme	rald Park l					ber 27, 2005		
Applicant/Owner: O	nyx Waste	Services			County:	Waukesha		
Investigator: Jerry Kell	•					Wisconsin		
Do normal circumstances			(Ý	es) No		ID: UPLAND		
Is the site significantly dis			درونه سندس	EARMED .				
Is the site a potential probl		, F	~	es (No)	Plot ID:			
VEGETATION				- Carre				
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Strate	um % Cover	Indicator	
1. Glycine max	<u>}-</u> }	30	UPL	1. Pennesetum q	laucum 1-	10	FAC+	
2. Thiaspi arvense	1-1	30	UPI_	2. Daucus care			UPL	
3				The state of the	· · ·	3	FAC-	
4				4. Poo. pratens 5. Solidago con 6. Sonchus «IV	is b	<u> </u>	FAC-	
5				5. Solidogo con	adensis <u>l</u>	H 45	FACU	
6	,			6. Somethus arv	ensis t	1 <5	EVC-	
7				7. Taraxacum	ifficinals t	1 45	FACU	
8		<b></b>	<b></b>	8				
9		<del></del>		9	<del></del>			
Percent of Dominant Species that (excluding FAC-).		ACW, or FA	С					
Remarks:						·····		
HYDROLOGY	***************************************							
Recorded Data (Desc		,			drology Indicato	TS		
Stream, Lak X Aerial Phot		Jauge		Primary indi	Primary IndicatorsInundated			
Other No Recorded Data A	vailable				Saturated in Upper 12 inches Water Marks			
101001000 15444 1					Drift Lines			
Field Observations:					Sediment I	Deposits Patterns in Wetland	le l	
Depth of Surface Wa	n) Secondary I	ndicators (2 or m	iore required)	13				
Depth to Free Water	n)	Oxidized F Water-Stai	Root Channels					
Depth to Saturated S	oil:		18 (ii	n)	Local Soil	Survey Data		
					FAC-Neutr	ral Test lain in remarks)		
Remarks: TOPO62A	PHIC L	ow AF	SA.					
							n na	
						,	]	

Map Unit l	Vame:				
(Series and	Phase): ASH	KUM SILTY C	Drainage Class	PO	
Taxonomy	(Subgroup) TY	PIC HAFLAQU	ours	Field Observations Confirm Mapped Type	e? (Yes ) No
Profile Des	cription				
Depth (inches)	Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0-14		10YR2/1	ParkVisor	partition .	SICL
14718		56% 10(R7/1	, pro-	warmen!	51CL
		50% 10YR3/3	ent/a-	mings.	SICL
_		-			
	-			**************************************	
Hydric Soil					
	stosol stic Epipedon		Concretions High Organic C	Content in Surface Layer	in Sandy Soil
Su	Ifidic Odor Juic Moisture Regime			ing in Sandy Soils	
Re	ducing Conditions		∠♥ Listed on Nation		
GI	eyed or Low-Chroma C	Colors	Other		***************************************
Remarks:					
WETLAN	D DETERMINATIO		A.A		
	le le le la	(Circle)	· · · · · · · · · · · · · · · · · · ·	<del></del>	
Hydrophyt	ic Vegetation Presen	t Yes (No	>		(Circle)
	ydrology Present	Yes (No		apling Point in a Wetl	`
Hydric Soi	ls Present	Yes No		•	Name of the state
Remarks:					

Project/Site: Onyx Emerald Park Landfill	Date: October 27, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin
Do normal circumstances exist on this site?  Yes No	Community ID: WETLAND
Is the site significantly disturbed (Atypical Situation)? (Yes) No pusite BRAIN	PATHENS Plot ID: UGA-PI
Is the site a potential problem area? Yes (No)	Plot ID: OGA 11
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant Species	
	comosus H 10 FACW
2. Echimochton crusgelli 17 60 1-NCW 2. Setaria	viriais H 10 FACT
3. <u>/\\$187 \@</u>	enceolatus 17 45 FACW
44.\(\frac{1}{2}\)\(\frac{1}\)\(\frac{1}{2}\)\(\frac{1}\)\(\frac{1}\)\(\frac{1}{2}\)\(\frac{1}\)\(\frac{1}{2}\)\(\frac	m hydropiper H 25 OBL subcordatum H 25 OBL
5 5.A.N.Sma S	subcordatum H 45 OBL
6 6	
	MARIOLANIA ANALYSIA PARAMANANANA
Percent of Dominant Species that are OBL, FACW, or FAC  (excluding FAC-).	
Remarks:	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
HYDROLOGY	
, , , , , , , , , , , , , , , , , , ,	d Hydrology Indicators
Stream, Lake, or Tide Gauge  X Aerial Photographs	y IndicatorsInundated
Other No Recorded Data Available	Saturated in Upper 12 inches Water Marks
	Drift Lines
Field Observations:	Sediment DepositsDrainage Patterns in Wetlands
Second Second	dary Indicators (2 or more required) Oxidized Root Channels
	Water-Stained Leaves
Depth to Saturated Soil: (in)	Local Soil Survey Data
No. 26	Other (explain in remarks)
Remarks: TOPOGERPIC LOW AREA	

Map Unit Nam	ne:				
(Series and Ph	ase):ASHKU1	4 SILTY CLAY	Drainage Class	PD	
Taxonomy (Su	bgroup) TYPIC	HAPLAQUOI	<u> </u>	Field Observations Confirm Mapped Type	e? (Yes) No
Profile Descrip	otion				
Depth (inches) H	Iorizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12 _		10YR2/1	**************************************		SICL
12-		5 GY 7/1	10YR6/8	MANY/PROMINENT	C (~ /4IN. THICK)
12>18		10/82/1			<u>C</u>
				•	
Hydric Soil Ind	licators:	······································			
Histos Histic	ol Epipedon	·	Concretions High Organic (	Content in Surface Layer	in Sandy Soil
Sulfidi	ic Odor Moisture Regime			ing in Sandy Soils	, , ,
Reduc	ing Conditions		Listed on Natio	nal Hydric Soils List	
Gleyed	d or Low-Chroma C	olors	Other		
Remarks: 🖹	I DEPLETED	BELOW DARK	SURFACE		
WETLAND D	DETERMINATIO	N			
		(Circle)			
Hydrophytic \	Vegetation Present	Yes No			(Circle)
Wetland Hydr	ology Present	(Yes) No	Is This Sar	npling Point in a Wetla	and (Yes) No
Hydric Soils P	Present	(Yes No			** course"
Remarks:					
					***************************************

<u></u>		(1987 C	OE Wettan	d Delineation Manu	181)		
Project/Site: Onyx Eme	rald Park	Landfill			Date: October 27, 2005		
Applicant/Owner: Or	County: Waukesha						
Investigator: <u>Jerry Kelly</u>	, Rachel`	<u>Veltman</u>			State: Wisconsin		
Do normal circumstances e	xist on th	is site?	(Y	es No	Community ID: UPLAND		
Is the site significantly dist	urbed (At	ypical Situ	ation)? Y	es No	Transect ID:		
Is the site a potential proble	em area?		Y	es (No)	Plot ID: W6A-P2		
VEGETATION			***				
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratum % Cover Indicator		
1. Danens carota	H	40	UPL		itus H 10 FACW		
2. Medicago sativa		20	UPL		us H 10 FALU		
3. Taraxacum officinale		20	FRU	3. Trifolium hi	Bridam H <u>KS FAC-</u>		
4				4			
5				5			
6,				6			
7				7			
8	·····			8			
9	<del></del>			9			
Percent of Dominant Species that		ACW, or FA	ıC				
(excluding FAC-).	<u> </u>						
Remarks:							
HYDROLOGY							
Recorded Data (Desc	ribe in Re	marks)		Wetland Hyd	Irology Indicators		
Stream, Lak				Primary Indi			
X Aerial Photo	graphs				Inundated		
Other No Recorded Data A	واطدانون				Saturated in Upper 12 inchesWater Marks		
No Recorded Data A	vanaoio				Drift Lines		
Field Observations:			in.		Sediment Deposits Drainage Patterns in Wetlands		
Depth of Surface Wa	ter:		<u> </u>	Secondary Ir	ndicators (2 or more required)		
Depth to Free Water	in Pit:		1)	Oxidized Root Channels Water-Stained Leaves			
Depth to Saturated Se	oil:		1)	Local Soil Survey Data			
					FAC-Neutral Test		
Remarks:					Other (explain in remarks)		

Map Unit Name:			****				
(Series and Phase):	SHKUM SILTY CL	Drainage Class	bD				
	rpic Haplaque	Field Observations Confirm Mapped Type? Yes (No)					
Profile Description							
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-4	10YR 3/1		13944	SICL			
4>18	10YR 4/3	**************************************	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	SIL			
			-				
		***************************************		***************************************			
		***************************************					
Hydric Soil Indicators:  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Re Reducing Condition Gleyed or Low-Chr	ns	Organic Streat  Clisted on Loca	High Organic Content in Surface Layer in Sandy Soil Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List				
Remarks:							
WETLAND DETERMIN	ATION						
	(Circle)						
Hydrophytic Vegetation F	resent Yes No	<u> </u>		(Circle)			
Wetland Hydrology Prese	nt Yes (No	o <sup>)</sup> Is This Sa	mpling Point in a Wet	tland Yes No			
Hydric Soils Present	Yes (No	9)					
Remarks:							

		(1907 C	OR ALCHUM	a Delinealion iylanı	(AAI)		
Project/Site: Onyx Eme	rald Park	Landfill			Date: October	27, 2005	<del></del>
Applicant/Owner: O	County:	Waukesha	<del></del>				
Investigator: <u>Jerry Kell</u>	y, Rachel	Veltman			State: Y	Wisconsin	
Do normal circumstances	exist on th	is site?	ĆÝ.	es No	Community ID:_	UPLAN	$\overline{\mathcal{D}}^{-}$
Is the site significantly dis	turbed (At	ypical Situ	ation)? Y	es No	Transect ID:		
Is the site a potential probl	em area?		Y	es (No)	Plot ID: W6-9	<u> PI;W6</u>	A-P3
VEGETATION							
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratum	% Cover	Indicator
1. Glycine max	1-1	40	UPL	1	<b>P</b>		
2. Plantono major	<u> </u>	20	FAC+	2			
3. Taraxacum officino	le H	20	FACU	3			
4. Daucus carota	-	20	UPL	4,			
5				5,			
6	***************************************			б			
7		· · ·	******************	7			
8	·····			8		,	
9				9			
Percent of Dominant Species tha	t are OBL, F	ACW, or FA	C				
(excluding FAC-). 25%							
Remarks:							
	·····						
HYDROLOGY	7 . 1 . 25 .	1\		I xxyd xxd xx	31		
Recorded Data (Des				Primary Indi	drology Indicators icators		
X Aerial Phot					Inundated		
Other	., , ,				Saturated in Up	per 12 inches	}
No Recorded Data A	vallable				Water Marks Drift Lines		
Field Observations:		B			Sediment Depo	sits	
			O 0		Drainage Patter	ns in Wetland	is
Depth of Surface Wa			(i:		ndicators (2 or more a Oxidized Root		
Depth to Free Water in Pit: > 18 (in)					Water-Stained		
Depth to Saturated Soil: > 18 (in)					Local Soil Surv	ey Data	
					FAC-Neutral T		
					Other (explain	m remarks)	
Remarks:							

Mon I Init ?	Vome								
1 -	Map Unit Name:  (Series and Phase): ELLIGTT SILT LOAM Drainage Class SPD								
11			Drainage Class	<u>SPD</u>					
Тахопоту	(Subgroup) AQU	ic ARGIUDOI	Field Observations Confirm Mapped Typ	e? Yes (No)					
Profile Des	scription								
Depth (inches)	Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.				
0-6	<u></u>	10YR 3/1	#/		SICL				
6>18	***************************************	10YR 3/3	**************************************	2000m	SIL				
<u></u>				····					
HiAqRe	stosol stic Epipedon Ifidic Odor puic Moisture Regime ducing Conditions eyed or Low-Chroma C	Colors	Organic Streak  Listed on Local	Content in Surface Layer ing in Sandy Soils I Hydric Soils List nal Hydric Soils List	in Sandy Soil				
Remarks:									
WETLAN	D DETERMINATIO	N							
		(Circle)							
Hydrophyt	ic Vegetation Presen	t Yes No			(Circle)				
	ydrology Present	Yes (No	Is This San	npling Point in a Wetl	and Yes No				
Hydric Soi	ls Present	Yes (No	<b>)</b>						
Remarks:				1000					
					li l				

	<del></del>		JE WEHAM	Defineation Manu		0 1 1 0	2005	
Project/Site: Onyx Emer						October 2		manamanany
Applicant/Owner: Onyx Waste Services						:V	Vaukesha	<del></del>
Investigator: Jerry Kelly	, Rachel Vo	eltman_			State:_	V	Visconsin	
Do normal circumstances e	xist on this	site?	<b>∑</b> Ýe	s) No	Commu	mity ID: <u> </u>	NETLAN	0
Is the site significantly dist	ırbed (Atyr	oical Situ	ation)? Ye	s (No)	Transec	t ID:		
Is the site a potential proble	em area?		Ye	s (No)	Plot ID:	W6	-PZ	
VEGETATION								
Plant Species	Stratum	% Cover	Indicator	Other Plant Species		Stratum	% Cover	Indicator
1. Phalaris arundinacea				1. Scirpus Fluv	iatilis	_H_	45	<u>08L</u>
2. Salix exigue		_50_	<u>08L</u>	2. Aster lanced	platus	<u> </u>	5	FACW
3			······	3	·····		***************************************	
4				4				
5				5				
6			+	6	<del></del>		<del></del>	<del></del>
7				7		***************************************		
8				8		***************************************		
9,				9				
Percent of Dominant Species that	are OBL, FA	CW, or FA	С					
(excluding FAC-). \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	<u> </u>							
Remarks:								
HYDROLOGY				Wetler J. Titre	Jun la mar Yea	diaatana		
Recorded Data (Desc. Stream, Lake					Wetland Hydrology Indicators Primary Indicators			
X Aerial Photo					Inundated			
Other No Recorded Data Av	vailable				Saturated in Upper 12 inches Water Marks			
						Lines		
Field Observations:			nent Depos		S <sub>o</sub>			
Depth of Surface Wat	) Secondary In			ns in Wetland equired)	15			
Depth to Free Water i	)	Oxid	ized Root (	Channels				
Depth to Saturated So	oil:	>	18 (in	)	······································	r-Stained I I Soil Surve		
					FAC	-Neutral Te	est	***************************************
,	. سر پ	~~~~~			Othe	r (explain i	n remarks)	
Remarks: TOPOGRAPH	1C 12 E	てはいちょう	ON					***************************************
								***************************************

Map Unit Name:							
(Series and Phase): ELLI	OTT SICT L	MAO-	Drainage Class SPD				
Taxonomy (Subgroup) A (3)			Field Observations Confirm Mapped Type? Yes No				
Profile Description							
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Texture, Concretions, Abundance/Contrast Structure, etc.				
<u>0-3</u>	10YR2/1		<u> </u>				
3>18	5443	10YR6/8	MANY/PROMINENT CL				
			**************************************				
Hydric Soil Indicators:			!				
Histosol Histic Epipedon		Concretions High Organic C	Content in Surface Layer in Sandy Soil				
Sulfidic Odor Aquic Moisture Regime		Organic Streaki	Organic Streaking in Sandy Soils  Listed on Local Hydric Soils List				
Reducing Conditions		Listed on National Hydric Soils List					
✓ Gleyed or Low-Chroma C	Colors	Other					
Remarks: FZ LOAMY GL	XIATUM COKS						
WETLAND DETERMINATION	 )N						
	(Circle)						
Hydrophytic Vegetation Presen	•	,	(Circle)				
Wetland Hydrology Present	nt <u>Yes</u> No <u>Ye</u> s No	) Is This Sar	mpling Point in a Wetland (Yes No				
Hydric Soils Present	(Yes No	1					
Remarks:							

		(1987 C	OE Wettan	d Delineation Mani	181)			
Project/Site: Onyx Eme	rald Park	Landfill			Date: October 27, 2005			
Applicant/Owner: On	County: V	Vaukesha						
Investigator: Jerry Kelly	, Rachel	Veltman			State: V	Visconsin		
Do normal circumstances e	xist on th	is site?	(Ý	es) No	Community ID:_	JPLAND		
Is the site significantly dist	urbed (At	ypical Situ	ation)? Y	es No	Transect ID:			
Is the site a potential proble	m area?		Y	es (No)	Plot ID: W6-P	3;W7	_P3	
VEGETATION								
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratum	% Cover	Indicator	
1. Glycine max					laucum I-l		FACT	
2. Taraxacum officinale		20	FACU	2. Poa praten	sis H	45	<u>FAC</u>	
3. Dancus caroto	14	20	<u> </u>	3				
4				4				
5	<del></del>			5				
6			1	6		<del></del>	<del></del>	
7				7				
8				8				
9				9	***************************************		•	
Percent of Dominant Species that (excluding FAC-).	are OBL, F.	ACW, or FA	С					
Remarks:		·····	······································					
Troniano,								
HYDROLOGY								
Recorded Data (Desc					drology Indicators			
Stream, Lake		Gauge		Primary Indi	Primary Indicators Inundated			
Other					Saturated in Up	per 12 inches		
No Recorded Data A	vailable				Water Marks Drift Lines			
Field Observations:					Sediment Depos			
Depth of Surface Wat	n) Secondary Ir	Drainage Pattern idicators (2 or more r		lS				
Depth to Free Water i	n)	Oxidized Root ( Water-Stained I						
Depth to Saturated Sc	n)	Local Soil Surve	ey Data					
				*********	FAC-Neutral Te			
Remarks:				1	<u> </u>			

Map Unit l	lame:						
(Series and	Phase): ELLIO-	TT SILT L	Drainage Class SPD				
Taxonomy	(Subgroup) A CRUI	<u>CARGIUDO</u>	Field Observations Confirm Mapped Type? Yes (No.)				
Profile Des	cription					N-1127	
Depth (inches)	Horizon	Matrix Color Munsell Moist	Cond Colo	entration r	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.	
0-3		10YR 4/3		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		514	
3>18		10YR3/3				514	
					*		
			***************************************				
			***************************************				
	***************************************				***************************************		
Hydric Soil	Indicators:		·····			***************************************	
Histosol       Concretions         Histic Epipedon       High Organic Content in Surface Layer in Sandy Soil         Sulfidic Odor       Organic Streaking in Sandy Soils         Aquic Moisture Regime       ★ Listed on Local Hydric Soils List							
Reducing ConditionsGleyed or Low-Chroma Colors				ther	ional Hydric Soils List		
Remarks:							
WETLANI	D DETERMINATIO	N	······································				
		(Circle)					
Hydrophyt	ic Vegetation Presen	t Yes (	<u>1</u> 0			(Circle)	
Wetland H	ydrology Present	Yes 🕦	<u>Jo</u>	Is This Sa	mpling Point in a Wet	tland Yes (No	
Hydric Soi	ls Present	Yes (Š	<u>19</u>		***************************************		
Remarks:							

Project/Site: Onyx Emer	ald Park	Landfill			Date: Oct	ober 27, 2005			
Applicant/Owner: On	yx Waste		County: Waukesha						
Investigator: Jerry Kelly.					1	Wisconsin			
Do normal circumstances ex		<del></del>	ĆΫ́	es No	Community	ID: WETLAN	7		
Is the site significantly distu			Market Company	TARMED		•			
Is the site a potential proble		, F	Y		l .	N7-P1			
VEGETATION									
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Strat	tum % Cover	Indicator		
1. Glycine max	14	40	UPL	1.Phalaris arund	linacea I	-1 10	FACW+		
25 cirpus Fluviatilis							FAC+		
3. Cyperus esculentus					Micinale	H <5	FACU		
4				4. Ambrosia Ti	ifila I	4 <5	FACT		
5				5. Dancus care	ita 1	4 <5	UPL		
6				6. Pennesetum			FACT		
7				7	<b>v</b>				
8				8					
9				9					
Percent of Dominant Species that are OBL, FACW, or FAC									
(excluding FAC-). (67) いる	ı				······································				
Remarks:									
		***************************************							
I	ilhe in Rer	narke)		Wetland Hyd	Irology Indicate	ors -			
Stream, Lake	, or Tide (				Primary Indicators				
X Aerial Photo	graphs			Saturated in Upper 12 inches					
No Recorded Data Av	ailable			Water Marks Drift Lines					
Field Observations:				Sediment Deposits					
Depth of Surface Wat	n) Secondary In	Drainage Patterns in Wetlands Secondary Indicators (2 or more required)							
Depth to Free Water is	n Pit:		1	Oxidized Root Channels  Water-Stained Leaves					
Depth to Saturated So	il:	>	a)	Local Soil Survey Data					
					***************************************	tral Test plain in remarks)			
Remarks: TOPOGRAPH	IC DE	PRESSI	¢ N	***************************************					
X Aerial Photo Other No Recorded Data Av  Field Observations: Depth of Surface Water in Depth to Saturated So	e, or Tide of graphs railable er: n Pit:		(in a second contract of the c	Primary Indic	Inundated Saturated Water Ma Drift Line Sediment Drainage dicators (2 or r Oxidized Water-Sta Local Soi	in Upper 12 inches irks cs Deposits Patterns in Wetlan- more required) Root Channels ained Leaves I Survey Data tral Test			

Map Unit Name:								
		TT SILT L	Drainage Class SPD					
Taxonomy (Subgroup) A QUIC A RGIUDOLLS					Field Observations Confirm Mapped Type? (Yes) No			
Profile Description								
	Horizon	Munsell Moist Col		entration	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-8		2.575/2	-	ggardina"		SICL		
8>18	10YR 2/1				SICL			
				-				
			-		-			
Hydric Soil In	dicators:							
Histosol Concretions High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other								
Remarks: All DEPLETED BELOW DARK SURFACE PROFILE FITS ASSIRUM SILTY CLAY INCLUSIONS.								
WETLAND DETERMINATION								
(Circle)								
Hydrophytic	Vegetation Present	Yes No	)			(Circle)		
Wetland Hydrology Present Yes No				Is This Sampling Point in a Wetland (Yes) No				
Hydric Soils	Hydric Soils Present (Yes) No							
Remarks:								

Project/Site: Onyx Emer	ald Park				Date: October 27, 2005			
Applicant/Owner: On	yx Waste	Services		County: Waukesha				
Investigator: Jerry Kelly				State: Wisconsin				
Do normal circumstances e			(Ÿe	s) No	Community ID: UPLAND			
Is the site significantly dist			مدعنتم	and the second	Transect ID:			
Is the site a potential proble	•	J	Ye	A Marie	Plot ID: W7-PZ			
VEGETATION								
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratum % Cover Indicator			
1. Aster ericoides	H	3,0	FACU-	1. Phalaris arun	rdinacca H 10 FACW			
2. Hordeum inbatum	<b>  </b>	20	FACT					
3. Taraxacum officirale	<u>. H</u>	20	FACU	3,				
4				4				
5				5				
6			and the second s	6				
7				7				
8				8,				
9			9					
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-). 33%								
Remarks:								
HYDROLOGY								
Recorded Data (Desc Stream, Lake X Aerial Photo Other No Recorded Data A	e, or Tide ( graphs	*		Wetland Hydrology Indicators Primary Indicators Inundated Saturated in Upper 12 inches Water Marks Drift Lines				
Field Observations:  Depth of Surface Wat  Depth to Free Water if  Depth to Saturated So	n Pit:	>	Secondary I:	Sediment Deposits Drainage Patterns in Wetlands Secondary Indicators (2 or more required) Oxidized Root Channels Water-Stained Leaves Local Soil Survey Data FAC-Neutral Test Other (explain in remarks)				
Remarks:								

Map Unit Name:								
(Series and	Phase): MORLE	1 SILT LOP	Drainage Class	WD				
I	(Subgroup)T\forall p	IC HAPLUDE	11-73	Field Observations Confirm Mapped Type? (Yes) No				
Profile Des	cription							
Depth (inches)	Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-8		104尺3/1			51L			
8>18		z.5Y6/3	104R6/8	COMMON/PROMINENT	·			
		-		A				
Hydric Soil	Indicators:							
	stosol		Concretions					
Hi  Su	stic Epipedon Ifidic Odor			Content in Surface Layer king in Sandy Soils	in Sandy Soil			
Aq	uic Moisture Regime	***************************************	Listed on Local Hydric Soils List Listed on National Hydric Soils List					
	ducing Conditions eyed or Low-Chroma C	Colors	Listed on Nati	ional Hydric Soils List				
Remarks:								
WETLAN	D DETERMINATIO	N						
		(Circle)						
Hydrophyt	ic Vegetation Presen	t Yes No	>		(Circle)			
Wetland H	ydrology Present	t Yes No Yes No	Is This Sa	mpling Point in a Wetl	and Yes (No)			
Hydric Soi	ls Present	Yes No			**************************************			
Remarks:								

(1987 COE Wetland Delineation Manua	11)			
Project/Site: Onyx Emerald Park Landfill	Date: October 26, 2005			
Applicant/Owner: Onyx Waste Services	County: Waukesha			
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin			
Do normal circumstances exist on this site? Yes No	Community ID: UPLAND			
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:			
Is the site a potential problem area? Yes (No)	Plot ID: W9-P1			
VEGETATION				
Plant Species Stratum % Cover Indicator Other Plant Species	Stratum % Cover Indicator			
1. Poa pratensis H 90 FAC- 1. Solidago carado	ensis H 5 FACU			
	sesenatus H 5 FACW-			
3 3. Geum macrophy	rllum H <5 FACWA			
4 4.5alidago qiqa	inter 14 <5 FACW			
ss.Achillea million	Follow H <5 FACT			
6. 6. Trageria Virgi	Indusia H <5 FACT			
7 7				
8 8				
9 9				
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-).				
(excluding FAC-).				
Activities.				
HYDROLOGY				
Recorded Data (Describe in Remarks) Wetland Hydro	ology Indicators			
Stream, Lake, or Tide Gauge Primary IndicaXAerial Photographs	Primary Indicators Inundated			
Other	Saturated in Upper 12 inches			
No Recorded Data Available	Water MarksDrift Lines			
Field Observations:	Sediment Deposits			
Depth of Surface Water: (in) Secondary Ind	Drainage Patterns in Wetlands Secondary Indicators (2 or more required)			
Depth to Free Water in Pit:	Oxidized Root Channels Water-Stained Leaves			
Depth to Saturated Soil: > 18 (in)	Local Soil Survey Data			
	FAC-Neutral Test Other (explain in remarks)			
Remarks:				

Map Unit N	Vame:					
(Series and	Phase): Morel	EY SILT LOAM	EROBED	Drainage Class	WD	
Taxonomy		ic Hapeuda		Field Observations Confirm Mapped Type? Yes No		
Profile Des	cription					
Depth (inches)	Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.	
0-8		10YR 3/1			SICL	
8>20		2.575/4			C. Low	
	***************************************					
Hydric Soil	Indicators:					
Hydric Soil Indicators:  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors  Concretions High Organic Content in Surface Layer in Sandy Soil Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other						
Remarks:						
WETLANI	D DETERMINATIO	N				
		(Circle)				
Hydrophyt	ic Vegetation Presen	t Yes <u>No</u> .	>		(Circle)	
Wetland H	ydrology Present	Yes No		pling Point in a Wetl	*c	
Hydric Soi	ls Present	Yes No				
Remarks:						

		(2,707,0	<u> </u>	a iveriication v	1				
Project/Site: Onyx Eme		Date: October 26, 2005							
Applicant/Owner: O	nyx Waste	Services			Count	y: <u>V</u>	Vaukesha		
Investigator: <u>Jerry Kell</u>	y, Rachel '	Veltman	······································	***************************************	State:_		Visconsin		
Do normal circumstances	No No	Comm	unity ID:_t	JE TLAN	۵				
Is the site significantly dis	s (No)	Transe	ect ID:						
Is the site a potential probl	s (No)	Plot II	): W9-	- D Z					
VEGETATION									
Plant Species	Stratum	% Cover	Indicator	Other Plant Spec	oles	Stratum	% Cover	Indicator	
1. Phalaris arundinoc	ea H	90	FACW+	1. Carex 1	acustris	1-1	10	08L	
2				2					
3			***************************************	3					
4,				4					
5			<u></u>	5	_				
6				6					
7				7					
8				8		***************************************	N	***************************************	
9				9					
Percent of Dominant Species that		ACW, or FA	С						
(excluding FAC-).	76 								
Remarks:									
HYDROLOGY		· · · · · · · · · · · · · · · · · · ·					· · · · · · · · · · · · · · · · · · ·		
Recorded Data (Des	cribe in Rer	narks)		Wetlan	d Hydrology I	ndicators	*****		
Stream, Lal X Aerial Phot		Gauge		Primar	Primary Indicators Inundated				
Other	~ <b>-</b>				Saturated in Upper 12 inches			;	
No Recorded Data A	vailable					ter Marks ft Lines			
Field Observations:						iment Depos		,	
Depth of Surface Wa	iter:		(ir	) Second	Dra lary Indicators		ns in Wetland equired)	is	
Depth to Free Water	in Pit:	**e,	<u>~18</u> (ir	1	Oxi	dized Root ( ter-Stained I	Channels		
Depth to Saturated S	oil:		> / 👸 (ir	1)	Loc	al Soil Surv	ey Data		
						C-Neutral Te er (explain i			
Remarks:				I		(vibium i	an a variable to j		

#### DATA FORM N

	~
	ROUTINE WETLAND DETERMINATIO
	(1987 COE Wetland Delineation Manual)
SOILS	
Map Unit Name:	
_	

Map Unit Name:									
(Series and Phase): A SHKU	M SILTY CLA	MACL M	Drainage Class	<u>PD</u>					
Taxonomy (Subgroup) TYP\C	HAPLAQUO	) LLS	Field Observations Confirm Mapped Type	e? (Yes) No					
Profile Description									
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.					
0-8	10 YR 2/1	Ningay ,		SICL					
3>18	10YR2/1		tions Mann/Promin DON FEW/Promin						
			,						
			•						
			-						
Hydric Soil Indicators:									
Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed or Low-Chroma Colors  Concretions  High Organic Content in Surface Layer in Sandy Soil  Organic Streaking in Sandy Soils  Listed on Local Hydric Soils List  Listed on National Hydric Soils List  Other									
Remarks: A 11 DEPLETED	BELOW DUBL	K SURFACE	· · · · · · · · · · · · · · · · · · ·						
WETLAND DETERMINATION	J								
	(Circle)								
Hydrophytic Vegetation Present	Yes No			(Circle)					
Wetland Hydrology Present	(Yes) No	Is This Sam	pling Point in a Wetla	and (Yes) No					
Hydric Soils Present	(Yes) No			"Account"					
Remarks:									

Project/Site: Onyx Eme	rald Dark		<u> </u>	d Demication Hand		26 2005			
			Date: October 26, 2005  County: Waukesha						
	Applicant/Owner: Onyx Waste Services								
Investigator: Jerry Kell		State: V	Wisconsin						
Do normal circumstances	exist on the	is site?	s No	Community ID:_	UPLANE	<u> </u>			
Is the site significantly dis	turbed (At	ypical Situ	es No	Transect ID:					
Is the site a potential problem area? Yes No					Plot ID: W9	<u> </u>			
VEGETATION									
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratum	% Cover	Indicator		
1. Pea protemsis	<u>H</u>	90	FACT	1. Daneus care	sta H	5_	<u>OPL</u>		
2	***************************************			2. Aster piles.	<u>us H</u>		FACU+		
3			P	2. Aster piles. 3. Spartina per	Tinata H	45	FACW+		
4				4. Euthamia gi	aminifolia H	_<5_	FACVIV-		
5				5					
6				6					
7				7					
8				8					
9		***************************************		9					
Percent of Dominant Species tha	t are OBL, F.	ACW, or FA	С						
(excluding FAC-).						······································			
Remarks:									
HYDROLOGYRecorded Data (Desc	مر المناسب	a o el ro)		Wotland The	Julian Indicators		7		
Recorded Data (Designation of the Stream, Lake and L				-	Wetland Hydrology Indicators Primary Indicators				
X Aerial Photo	ographs			<del></del>	Inundated				
Other No Recorded Data A	vailable				Saturated in Upper 12 inches Water Marks				
					Drift Lines		Î		
Field Observations:			400		Sediment Depo: Drainage Patter		ie l		
Depth of Surface Wa	iter:		<u>O</u> (ir	1) Secondary Ir	idicators (2 or more r	equired)			
Depth to Free Water	in Pit:	<u> </u>	<u>/ 8</u> (ir	1)	Oxidized Root 6 Water-Stained I				
Depth to Saturated S	oil:	>	/ 🖇(ir	1)	Local Soil Surv				
				***************************************	FAC-Neutral To				
Remarks:					Other (explain )	ai i chiai KS)			
Avoidancs.									

Map Unit Name:					
(Series and Phase): Mo	NTEOMERY SILTY	Drainage Class	SPD		
Taxonomy (Subgroup)	TYPIC HAPLAQ	VOLLS	Field Observations Confirm Mapped Type? (Yes) No		
Profile Description					
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.	
0-6	10YR2/1		SCA-PPL-	511	
6>18	545/1			SICL	
				-	
		-			
Hydric Soil Indicators:					
Histosol Histic Epipedon	_	Concretions	Content in Surface Layer	in Condy Cail	
Sulfidic Odor	_	Organic Streak	ing in Sandy Soils	III Salidy Soli	
Aquic Moisture Re			Hydric Soils List mal Hydric Soils List		
Gleyed or Low-Ch		Other	mai rrydric 50ns Eist		
Pamarka A I I Stra	LETED BELOW DA	AN SUPERIE			
Kemarks: MII DEP	LETED BELOW DA	RIC JORF. ILC			
WETLAND DETERMIN	IATION				
	(Circle)				
Hydrophytic Vegetation I	Present Yes No	>		(Circle)	
Wetland Hydrology Prese	ent Yes No	Is This San	npling Point in a Wetl	and Yes No	
Hydric Soils Present	Yes No				
Remarks:					

(1987 COE Wetland Deli	neation (Manual)			
Project/Site: Onyx Emerald Park Landfill	Date: October 26, 2005			
Applicant/Owner: Onyx Waste Services	County: Waukesha			
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin			
Do normal circumstances exist on this site? Yes	No Community ID: WETLAND			
Is the site significantly disturbed (Atypical Situation)? Yes	No Transect ID:			
Is the site a potential problem area? Yes	No Plot ID: W9A-P2			
VEGETATION				
Plant Species Stratum % Cover Indicator Other	Plant Species Stratum % Cover Indicator			
1. Phalaris arundinacea H 100 FACW+ 1.C	arex stricta. H <5" OBL			
2 2.50	Midago gigantea H <5 FACW			
	~ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
44				
5 5				
6 6				
7 7	······································			
8 8				
99				
Percent of Dominant Species that are OBL, FACW, or FAC				
(excluding FAC-). ) $\bigcirc \bigcirc \bigcirc \bigcirc_{c_1}$				
Actions.				
HYDROLOGY				
Recorded Data (Describe in Remarks)	Wetland Hydrology Indicators			
Stream, Lake, or Tide Gauge X Aerial Photographs	Primary Indicators Inundated			
Other No Recorded Data Available	Saturated in Upper 12 inches Water Marks			
No Recorded Data Available	Water MarksDrift Lines			
Field Observations:	Sediment DepositsDrainage Patterns in Wetlands			
Depth of Surface Water:(in)	Secondary Indicators (2 or more required)			
Depth to Free Water in Pit: $\frac{>18}{>8}$ (in)	Oxidized Root ChannelsWater-Stained Leaves			
Depth to Saturated Soil:	Local Soil Survey Data  K FAC-Neutral Test			
	Other (explain in remarks)			
Remarks:				

		(1307 C	OE WELLAN	u Deimeauon mani	taij			
Project/Site: Onyx Eme	rald Park	Landfill			Date: October 2	27, 2005		
Applicant/Owner: Or	iyx Waste	Services			County: V	Vaukesha		
Investigator: Jerry Kelly	, Rachel	Veltman			State: V	Visconsin	····	
Do normal circumstances e	xist on thi	is site?	ζÝ.	es No	Community ID:_\	JPLAND		
Is the site significantly dist	es (No)	Transect ID:						
Is the site a potential problem area? Yes				es No	Plot ID: W?	- P3		
VEGETATION								
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratum	% Cover	Indicator	
1. Solidago canadensis				1. Dancus caro			UPL	
2. Merilotus alba		3 <i>O</i>	FACU	The state of the s			FACW-	
3. Ambrosia trifida	<u> </u>	20	FACT	<b>\_</b> }				
4. <u>Cirsium arvense</u>	<u> </u>	20	<u>FACU</u>	4				
5				5			<del></del>	
6			•	6				
7				7			<del></del>	
8		***************************************		8				
9				9				
Percent of Dominant Species that	are OBL, F	ACW, or FA	С					
(excluding FAC-). 25%								
Remarks:								
TIXED OF OCK	·	<del> </del>						
HYDROLOGY Recorded Data (Desc	ribe in Rer	narke)		Wetland Hw	trology Indicators			
Stream, Lak				1	Wetland Hydrology Indicators Primary Indicators			
X Aerial Photo	ographs			Inundated				
Other No Recorded Data A	rmilable			Saturated in Upper 12 inches				
No Recorded Data A	valiable				Water MarksDrift Lines			
Field Observations:			۵		Sediment DepositsSediment DepositsSediment Deposits			
Depth of Surface Wa	ter:		<u>(ir</u>	Secondary Ir	dicators (2 or more re	equired)		
Depth to Free Water	in Pit:	>	(ir	1) —	Oxidized Root ( Water-Stained I			
Depth to Saturated So	oil:	>	/8 (ir	1)	Local Soil Surve	ey Data		
					FAC-Neutral Te			
Remarks:					\			

Map Unit Name:		<del></del>				
(Series and Phase): MONT	IGOMERY SILTY	clay loam	Drainage Class	PO		
Taxonomy (Subgroup)	YPIC HAPLAGE	JOLLS	Field Observations Confirm Mapped Typ	pe? Yes (Ng)		
Profile Description						
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.		
<u>0-8</u>	10YR2/1	<i>pust-</i>	-	<u> </u>		
8>18	2.5Y5/3	deprinque.	· · · · · · · · · · · · · · · · · · ·	\$\L.		
W			<del></del>			
4						
Hydric Soil Indicators:		***************************************				
Histosol		Concretions				
Histic Epipedon Sulfidic Odor		High Organic Content in Surface Layer in Sandy Soil				
Aquic Moisture Regi		Organic Streaking in Sandy Soils  Listed on Local Hydric Soils List				
Reducing ConditionsGleyed or Low-Chron		Listed on National Hydric Soils List Other				
Remarks:						
WETLAND DETERMINA	TION					
	(Circle)					
Hydrophytic Vegetation Pre	The same of the sa	2		(Circle)		
Wetland Hydrology Present	مسيورون. استون	•	mpling Point in a Wetl	land Yes No		
Hydric Soils Present	Yes (No	<u>ن</u>				
Remarks:						

Project/Site: Onyx Emerald Park Landfill	Date: October 27, 2005			
Applicant/Owner: Onyx Waste Services	County: Waukesha			
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin			
Do normal circumstances exist on this site? Yes No	Community ID: WETLAND			
Is the site significantly disturbed (Atypical Situation)? Yes (No.)	Transect ID:			
Is the site a potential problem area?  Yes No	Plot ID: W9-P4			
VEGETATION				
Plant Species Stratum % Cover Indicator Other Plan	t Species Stratum % Cover Indicator			
1. Phalaris arundinacea H 80 FACW+ 1.				
2. Helianthus grosseserratus H 20 FACW-2				
I				
5 5				
66				
7 7				
8				
9 9				
Percent of Dominant Species that are OBL, FACW, or FAC				
(excluding FAC-). 10-0°%				
Remarks:				
HYDROLOGY				
Recorded Data (Describe in Remarks)	etland Hydrology Indicators			
Stream, Lake, or Tide Gauge  X Acrial Photographs	Primary Indicators Inundated			
Other	Saturated in Upper 12 inches			
No Recorded Data Available	Water MarksDrift Lines			
Field Observations:	Sediment DepositsDrainage Patterns in Wetlands			
Depth of Surface Water:(in) So	econdary Indicators (2 or more required)			
Depth to Free Water in Pit: $> 18$ (in)	Oxidized Root Channels Water-Stained Leaves			
Depth to Saturated Soil: // 3 (in)	Local Soil Survey Data  K FAC-Neutral Test			
	Other (explain in remarks)			
Remarks:				

Map Unit Name:								
(Series and	Phase): MONTGO	MERY SILTY	LOAM	Drainage ClassPD				
Taxonomy	(Subgroup) TYPIC	HAPLAQUO	LLS		Field Observations Confirm Mapped Type? Yes / No			
Profile Description								
Depth (inches)	Horizon	Matrix Color Munsell Moist	Conc	entration r	Concentration Texture, Concretions, Abundance/Contrast Structure, etc.			
0-4		10YR2/1		Balling	516			
4>18		5646/1	10	YR6/8	COMMON/PROMINENT SICL			
	-							
Hydric Soil	Indicators:							
	stosol	_		Concretions				
	stic Epipedon Ifidic Odor	_	High Organic Content in Surface Layer in Sandy Soil Organic Streaking in Sandy Soils					
	uic Moisture Regime ducing Conditions	=	Listed on Local Hydric Soils List  Listed on National Hydric Soils List					
	eyed or Low-Chroma C	Colors	Other					
Remarks:	FZ LOAMY	GLEYED MAT	XIST					
WETLAN	D DETERMINATIO	N						
		(Circle)						
Hydrophyt	ic Vegetation Presen	t Yes N	o		(Circle)			
Wetland H	ydrology Present	Yes N	0	Is This Sampling Point in a Wetland Yes No				
Hydric Soi	ls Present	Yes N	0					
Remarks:								
						- 1		

(1987 COE Wetland Delineatio	M (Atauman)
Project/Site: Onyx Emerald Park Landfill	Date: October 27, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: <u>Jerry Kelly, Rachel Veltman</u>	State: Wisconsin
Do normal circumstances exist on this site? Yes No	Community ID: UPLAND
Is the site significantly disturbed (Atypical Situation)? Yes No	Transect ID:
Is the site a potential problem area? Yes (No	Plot ID: <u>W9-P5</u>
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant S	Species Stratum % Cover Indicator
1. Elycine max H 100 UPL I Tarana	cumofficinale H <5 FACU
2. <u>Dancus</u>	carota H <5 UPL
3 3	
4 4	
5 5	
66	
7 7	
8 8	
99	
Percent of Dominant Species that are OBL, FACW, or FAC	
(excluding FAC-).	
Remarks.	
HYDROLOGY	
	land Hydrology Indicators
	nary Indicators
X Aerial Photographs Other	Inundated Saturated in Upper 12 inches
No Recorded Data Available	Water Marks
	Drift Lines
Field Observations:	Sediment Deposits Drainage Patterns in Wetlands
	ondary Indicators (2 or more required)
Depth to Free Water in Pit: \(\simegl) \(\frac{\dagger}{\dagger}\) (in)	Oxidized Root ChannelsWater-Stained Leaves
Depth to Saturated Soil: > / 8 (in)	Local Soil Survey Data
	FAC-Neutral Test
	Other (explain in remarks)
Remarks:	

SOILS Map Unit Name: (Series and Phase): MONTGOMERY SILTY CLIN LOAM Drainage Class Taxonomy (Subgroup) TYPIC HAFLAQUOLLS Field Observations Confirm Mapped Type? No Profile Description Depth Matrix Color Concentration Concentration Texture, Concretions, Munsell Moist (inches) Horizon Color Abundance/Contrast Structure, etc. 10YR 3/1 516 7.546/2 14>18 51CL Hydric Soil Indicators: Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List \_Gleyed or Low-Chroma Colors Remarks: A 12 THICK DARK SURFACE WETLAND DETERMINATION (Circle) Hydrophytic Vegetation Present Yes (Circle) Wetland Hydrology Present No Yes Is This Sampling Point in a Wetland Hydric Soils Present  $\langle \gamma_{\rm es} \rangle$ Remarks:

		(1907 C	OE WEHAH	d Denneation Iviani	141)		·····
Project/Site: Onyx Em	erald Park	Landfill			Date: October 27, 2005		
Applicant/Owner: O	Applicant/Owner: Onyx Waste Services			County:V	Vaukesha		
Investigator: <u>Jerry Kell</u>	y, Rachel \	Veltman			State: V	Visconsin	
Do normal circumstances	exist on thi	is site?	Ţ	es No	Community ID: 1	JETLAN)	<u> </u>
Is the site significantly dis	turbed (At	ypical Situ	ation)? Y	es No	Transect ID:		<del></del>
Is the site a potential prob	lem area?		Y	es (No)	Plot ID: W9-	- P6	
VEGETATION							
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratum	% Cover	Indicator
1. Glycine max	<u> </u>	100	UPL	1. Phalaris arun	ndinerska H	45	FACW+
2	<u></u>			2			***************************************
3				3		•	***************************************
4,		<del></del>		4		***************************************	
5					·····		
6				6		<u></u>	
7				7		***************************************	^
8			***************************************	8			
9				9		<b></b>	·
Percent of Dominant Species that (excluding FAC-).		ACW, or FA	ıC				
Remarks: FARMED WETLAND; TWEEDS ARE WETLAND SPECIES							
There is a second of the secon							
HYDROLOGY							
Recorded Data (Des				Wetland Hy	irology Indicators		
X Aerial Pho	ke, or Tide ( tographs	Jauge		Pilitary aidi	Inundated		
Other No Recorded Data A	lymilals la				Saturated in Up Water Marks	per 12 inches	;
INO Recorded Data A	availaule				Water Marks Drift Lines		
Field Observations:					Sediment Depor		1-
Depth of Surface W	ater:		<u>^</u> (i:	n) Secondary II	Drainage Patter adicators (2 or more r		as
Depth to Free Water	Depth to Free Water in Pit:				Oxidized Root (	Channels	
Depth to Saturated S	Soil:	>	<u>/                                    </u>	n)	Water-Stained I		
				************	FAC-Neutral To	est	
					Other (explain i	n remarks)	
Remarks:							

Map Unit Na	ame:		***************************************			
(Series and Phase): MUSKEGO MUCK					Drainage Class	VPD
11	Taxonomy (Subgroup) Limitic Medisaprists			Field Observations Confirm Mapped Type? (Yes) No		
Profile Descr	ription					
Depth (inches)	Horizon	Matrix Color Munsell Moist	Conc Color	entration	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0>12		N 2.5/0				MUCK
		***************************************				
	minteres to a committee of the following and a committee of the committee	<del>-                                    </del>	****	<u></u>		
			****			
					***************************************	
Hydric Soil Indicators:    Y						r in Sandy Soil
Remarks:	A 1 HISTOSO	١ ـــ				
WETLAND	DETERMINATIO	N				
T 7 Need 2 week 5.5 c mar-		(Circle)	)			
Hydrophytic	c Vegetation Present					(Circle)
	drology Present		No	Is This Sa	mpling Point in a Wet	
Hydric Soils	s Present	(Yes)	No			*Making I Seri
Remarks:	ACTIVELY F	ARMED WE	TLAND			



Project/Site: Oney Eme	rold Dark	Landfill				Date: October 2	25 2005	·
Project/Site: Onyx Emerald Park Landfill					attent to the telephone attenue		•	
Applicant/Owner: Onyx Waste Services			County: V					
Investigator: Jerry Kelly	, Rachel	Veltman				State: V	Visconsin	
Do normal circumstances e	xist on th	is site?	Œ	es N	lo ****	Community ID:_	OPCAND	
Is the site significantly dist	urbed (At	ypical Situ	ation)? Y	es (N	10)	Transect ID:		
Is the site a potential proble	em area?		Y	es (Ñ	ĺ	Plot ID: (ル)に	<u>-P1</u>	
VEGETATION								
Plant Species	Stratum	% Cover	Indicator	Other	Plant Species	Stratum	% Cover	Indicator
1. Triticum aestivum	Je J	90	UPL	1. <u>G</u> 1	ycine me	-X H		٥٩٧
2				2. <u>Ta</u>	raxacum of	Fictmale H	E.	FACU
3		·····		3	····			
4	***************************************			4			·	
5								
6				6		***************************************		·
7				7				
8				8				
9		***************************************	***************************************	9			***************************************	
Percent of Dominant Species that	аге OBL, F	ACW, or FA	С	***************************************				
(excluding FAC-). 3%								
Remarks:								
	·····							
HYDROLOGY  Recorded Data (Description)	riba in Par	narke)	···········		Watland Hud	Irology Indicators		
Stream, Lak	e, or Tide (	•			Primary India	cators		
X Aerial Photo Other	graphs				***************************************	Inundated Saturated in Up	ner 12 inches	
No Recorded Data A	vailable					Water Marks	por 12 moneo	
						Drift Lines Sediment Depos	nita	
Field Observations:	<b>.</b>		(°) "	55		Drainage Patter	ns in Wetland	s
Depth of Surface Water:  Depth to Free Water in Pit:    O			Secondary In	dicators (2 or more r Oxidized Root (		ANY CONTRACTOR OF THE PARTY OF		
Depth to Free Water			۷ (۷	in)		Water-Stained I	Leaves	
Depth to Saturated So	011:		(1	in)		Local Soil Surve FAC-Neutral Te		
						Other (explain i		
Remarks:								

SOILS Map Unit Name: PD MONTGOMERY SILTY CLAY LOAM (Series and Phase): Drainage Class TYPIC HAPLAQUOLLS Field Observations Taxonomy (Subgroup) Confirm Mapped Type? No Profile Description Depth Matrix Color Concentration Concentration Texture, Concretions, (inches) Horizon Munsell Moist Color Abundance/Contrast Structure, etc. 0>18 10YR2/1 516 Hydric Soil Indicators: Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other A12 THICK DARK SURFACE Remarks: WETLAND DETERMINATION (Circle) Hydrophytic Vegetation Present Yes (Circle) Wetland Hydrology Present Yes Is This Sampling Point in a Wetland Hydric Soils Present (Yes No Remarks:

Project/Site: Onyx Emerald Park Landfill	Date: October 25, 2005
Applicant/Owner: Onyx Waste Services	County:Waukesha
Investigator: Jerry Kelly, Rachel Veltman	State: Wisconsin
Do normal circumstances exist on this site? Yes No	and the second of
Is the site significantly disturbed (Atypical Situation)? Yes (No	
Is the site a potential problem area? Yes (No	
VEGETATION	
	ant Species Stratum % Cover Indicator
1. Phalamis arundinasca 1-1 100 FACINI+1.	
3 3	
4 4	
5 5	
6	
7 7	
8 8	
99	
Percent of Dominant Species that are OBL, FACW, or FAC  (excluding FAC-).	
Remarks:	
HYDROLOGY	
§	Wetland Hydrology Indicators Primary Indicators
X Aerial Photographs	Inundated
Other No Recorded Data Available	Saturated in Upper 12 inchesWater Marks
	Drift LinesSediment Deposits
Field Observations:  Depth of Surface Water: (in)	Drainage Patterns in Wetlands
Depth of Surface water: (in)  Depth to Free Water in Pit: >18 (in)	Secondary Indicators (2 or more required)Oxidized Root Channels
Depth to Saturated Soil: \(\) 18 (in)	Water-Stained LeavesLocal Soil Survey Data
	FAC-Neutral Test Other (explain in remarks)
Remarks:	оны (охран и гонако)



Map Unit Name:		Al		
(Series and Phase): MONTG	MERY SILTY	Drainage Class	PD	
Taxonomy (Subgroup)	(PIC HAPLAGE	Field Observations Confirm Mapped Type	oe? (Yes) No	
Profile Description				
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0-16	10YP 2/1	37. 20. C. p. L.	VA STANDAR	\$16 L
16>18	N4/0	and the second s	Agrants (*	King Eura
			***************************************	
			***	
				<u></u>
		<u></u>	**	
				ļ
Hydric Soil Indicators:				***************************************
Histosol		Concretions		
Histic Epipedon	<u></u>	High Organic	Content in Surface Layer	in Sandy Soil
Sulfidic OdorAquic Moisture Regime			king in Sandy Soils al Hydric Soils List	
Reducing Conditions		Listed on Nati	ional Hydric Soils List	
XGleyed or Low-Chroma C	Joiors	Other		
Remarks: A12-THICK	DARK SURFAC	E	***************************************	
WETLAND DETERMINATION	<b>1.3.</b> 1			
WEILWIND DETECTION AT IC				
Hydrophytic Vegetation Presen	(Circle)			
Wetland Hydrology Present		In This C.	The System is a Yyear	(Circle)
•	(Yes) No	ls ims sa	ampling Point in a Wetla	and (Yes') No
Hydric Soils Present	(Yes) No			
Remarks:				7

(1987 COE Welland D	Anneation intention)					
Project/Site: Onyx Emerald Park Landfill	Date: October 28, 2005					
Applicant/Owner: Onyx Waste Services	County: Waukesha					
Investigator: Jerry Kelly, Allison Oberc	State: Wisconsin					
Do normal circumstances exist on this site?	No Community ID: UPLAND					
Is the site significantly disturbed (Atypical Situation)? Yes	No Transect ID:					
Is the site a potential problem area? Yes	No Plot ID: W10 - P3					
VEGETATION						
Plant Species Stratum % Cover Indicator O	her Plant Species Stratum % Cover Indicator					
	Glycine max H 5 UPC					
2	Plantage major 4 KS FACT					
3 3.	Taraxacum officinale H 45 FACU					
4 4.						
5,5.						
6 6.						
7 7.						
8 8.						
9 9.						
Percent of Dominant Species that are OBL, FACW, or FAC						
(excluding FAC-).						
Remarks:						
HYDROLOGY	Wetland Hydrology Indicators					
Recorded Data (Describe in Remarks)Stream, Lake, or Tide Gauge	Primary Indicators					
X Aerial Photographs	Inundated					
Other No Recorded Data Available	Saturated in Upper 12 inches Water Marks					
	Drift Lines					
Field Observations:	Sediment DepositsDrainage Patterns in Wetlands					
Depth of Surface Water:(in)	Secondary Indicators (2 or more required)					
Depth to Free Water in Pit: \(\sime\) \(\sime\) \(\lambda\) (in)	Oxidized Root Channels					
Depth to Saturated Soil: \(\simegl) \sqrt{8} (in)	Water-Stained LeavesLocal Soil Survey Data					
	FAC-Neutral Test					
	Other (explain in remarks)					
Remarks:						
	,					

Map Unit Name:				
(Series and Phase):	MONTGOMERY SILTY	Drainage Class	<u> </u>	
Taxonomy (Subgroup)	Taxonomy (Subgroup) TYPIC HAPLAQUOLLS			Yes) No
Profile Description				
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color		cture, Concretions,
0-8	10YR3/1			SICL
8>18		10YR6/8	COMMON/PROMINENT	£166
Hydric Soil Indicators:				
Histosol Histic Epipedo	on	Concretions High Organic (	Content in Surface Layer in Sa	ndy Soil
Sulfidic Odor Aquic Moistur	e Regime		ing in Sandy Soils I Hydric Soils List	•
Reducing Con			onal Hydric Soils List	
Gleyed of Low	y-Cironia Colors	Other		· · · · · · · · · · · · · · · · · · ·
Remarks: All D	EPLETED BELOW D	ark surface	Tuesday and the second	
WETLAND DETER	MINATION			
	(Circle)			
Hydrophytic Vegetati	on Present Yes No	<b>&gt;</b>		(Circle)
Wetland Hydrology F	/	···	mpling Point in a Wetland	Yes (No)
Hydric Soils Present	(Yes) No	•		- Simmy page
Remarks:				

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Project/Site: Onyx Emerald Park Landfill	Date: October 28, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: Jerry Kelly, Allison Oberc	State: Wisconsin
Do normal circumstances exist on this site? Yes No	Community ID: WEYLAND
Is the site significantly disturbed (Atypical Situation)? Yes No	Transect ID:
Is the site a potential problem area? Yes No	Plot ID: W10 - P4
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant Sp	pecies Stratum % Cover Indicator
1. Phalaris arundinguea H 100 FACW+ 1. Helianth	ius grossesectatus H 45 FACW-
2	
3 3	
44	
55	
66	
7 7	
8 8	
Percent of Dominant Species that are OBL, FACW, or FAC	
(excluding FAC-). 100%	
Remarks:	
	ų vietas ir
HYDROLOGY	1 YY 1 1 Y 31
	and Hydrology Indicators ary Indicators
X Aerial Photographs	Inundated
Other No Recorded Data Available	Saturated in Upper 12 inches Water Marks
	Drift Lines
Field Observations:	Sediment Deposits
Depth of Surface Water: (in) Second	Drainage Patterns in Wetlands udary Indicators (2 or more required)
Depth to Free Water in Pit: >18 (in)	Oxidized Root Channels
Depth to Saturated Soil: > 18 (in)	Water-Stained LeavesLocal Soil Survey Data
	FAC-Neutral Test
	Other (explain in remarks)
Remarks:	
	<u>,</u>

Map Unit 1	Name:					
(Series and	l Phase): MONTGO	MERY SILTY	CLAY	LOAM	Drainage Class	PD
Taxonomy	(Subgroup) TYPIC	HAPLAQUOI	LLS		Field Observations Confirm Mapped Type	e? (Yes) No
Profile Des	scription					
Depth (inches)	Horizon	Matrix Color Munsell Moist	Conce Color	entration r	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0>18		10YR 2/1		4,54914	-	SICL
				***************************************	-	**************************************
	<del></del>					
			***************************************	,		**************************************
			***************************************			
	,					
Hydric Soil	l Indicators:					
***************************************	istosol istic Epipedon	•••••		oncretions igh Organic (	Content in Surface Layer	in Sandu Sail
Su	ılfidic Odor		Or	rganic Streak	cing in Sandy Soils	III Sandy Son
Re	quic Moisture Regime educing Conditions		$_{\perp}$ Lis	isted on Natio	ıl Hydric Soils List onal Hydric Soils List	
<u> </u>	leyed or Low-Chroma C	Colors	Ot	ther	·	
Remarks:	A12 THICK	DARK SURFAC	in Con			
`**ETLAN						
VVEILAN	D DETERMINATIO					
Livdrophyl	tic Vegetation Presen	(Circle)	r.	l		(Ci-ala)
	ue vegeration rresen Iydrology Present	nt <u>(Yes)</u> No (Yes) No		To This Sa	mpling Point in a Wetla	(Circle) and (Yes) No
Hydric Soi		Yes No	ľ	10 11110 ~~.	mhung route ur a 11 of	and 165) 140
Remarks:					<del></del>	
IXOIIIAIRS.						

(1987 COE Wetland Defineation Man	uan)
Project/Site: Onyx Emerald Park Landfill	Date: October 28, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: Jerry Kelly, Allison Oberc	State: Wisconsin
Do normal circumstances exist on this site? Yes No	Community ID: UPLAND
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:
Is the site a potential problem area? Yes No	Plot ID: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant Species	Stratum % Cover Indicator
1. Triticum aestivum H 95 UPC 1. Elycine m	ax H 5 UPL
2 2. 5 shchus ar	vensis H 45 FACT
3. Taraxacym	officinale H 25 FACU
4 4	
5 5	
66	
Percent of Dominant Species that are OBL, FACW, or FAC	
(excluding FAC-).	
Remarks:	
HYDROLOGY	
Recorded Data (Describe in Remarks) Stream, Lake, or Tide Gauge Wetland Hy Primary Ind	drology Indicators icators
X Aerial Photographs	Inundated
Other No Recorded Data Available	Saturated in Upper 12 inches Water Marks
	Drift Lines
Field Observations:	Sediment DepositsDrainage Patterns in Wetlands
	ndicators (2 or more required)
Depth to Free Water in Pit: \(\sime\) \(\sime\) (in) \(-\)	Oxidized Root Channels Water-Stained Leaves
Depth to Saturated Soil:	Local Soil Survey Data
	FAC-Neutral Test Other (explain in remarks)
	Onici (explain in remarks)
Remarks:	

Map Unit Name:				
(Series and Phase): MAR	ETINTON SILT L	.oAM	Drainage Class	SPD
Taxonomy (Subgroup)	auic Areivbor	Field Observations Confirm Mapped Typ	pe? (Yes No	
Profile Description				
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0-5	10YR 2/1	****	e de la constante de la consta	516
<u>5&gt;18</u>	10YR3/2	.0754		51L
		<del></del>	-	Mariana and an
	<u></u>		*	
		•		
Hydric Soil Indicators:				
Histosol		Concretions		
Histic Epipedon Sulfidic Odor	······		Content in Surface Layer king in Sandy Soils	in Sandy Soil
Aquic Moisture Reg		🔀 Listed on Loc	al Hydric Soils List	
Reducing ConditionsGleyed or Low-Chro		Listed on Nati Other	ional Hydric Soils List	
		7777		
Remarks:				
WETLAND DETERMINA	ATION	<u></u>		
	(Circle)			
Hydrophytic Vegetation Pr	resent Yes No			(Circle)
Wetland Hydrology Presen	nt Yes No	Is This Sa	ampling Point in a Wetl	land Yes (No)
Hydric Soils Present	Yes (No	P		-mycrep-
Remarks:				

Project/Site: Onyx Emer	ald Park			Defineation Man	Date: October 28, 2005		
Applicant/Owner: On	yx Waste	County:Waukesha					
Investigator: Jerry Kelly			State: Wisconsin				
Do normal circumstances exist on this site?  Is the site significantly disturbed (Atypical Situation)?  Yes  No					Community ID: WETLAND  Transect ID:  Plot ID: WIO - PG		
Is the site a potential proble	Plot ID: 010 10						
VEGETATION							
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratum % Cover Indicator		
1. Phaloris arundinacea	1-1	100	<b>EUCM</b> +	1			
2			<u> </u>	2			
3				3			
4				4			
5				5,			
6				6	Notice of the second se		
7				7			
8		***************************************	***************************************	8			
9							
Percent of Dominant Species that	are OBL, F	ACW, or FA	С				
(excluding FAC-). ) ひつ 引							
Remarks:							
	. ,						
HYDROLOGY							
Recorded Data (Desc Stream, Lake		•		Wetland Hy-	drology Indicators		
X Aerial Photo		Gauge			Inundated		
Other No Recorded Data A	vailable				Saturated in Upper 12 inches Water Marks		
No Recorded Data Available					Drift Lines		
Field Observations:  Depth of Surface Water in the Depth to Free Water in the Preservations.			(in	2000	Sediment DepositsDrainage Patterns in Wetlands ndicators (2 or more required)Oxidized Root Channels Water-Stained Leaves		
Depth to Saturated So	oil:		1 8 (in	)	Local Soil Survey Data FAC-Neutral Test Other (explain in remarks)		
Remarks:							

Map Unit 1	Name:						
(Series and	l Phase): MONTGO	MERY SILTY	Drainage Class	PD			
Taxonomy (Subgroup) TYPIC HAPLAQUOLLS					Field Observations Confirm Mapped Type? (Yes) No		
Profile Des	Profile Description						
Depth (inches)	Horizon	Matrix Color Co Munsell Moist Co		entration	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.	
0>18		10YR2/1		-	come	SICL	
			***************************************				
		***************************************					
		•••••••••••••••••••••••••••••••••••••••	***************************************			***************************************	
	tanto anno anno anno anno anno anno anno					D	
			·				
HiSuAcRe	Hydric Soil Indicators:  Histosol Concretions High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Reducing Conditions Listed on Local Hydric Soils List Gleyed or Low-Chroma Colors Other						
Remarks:	A12-THICK T	DARK SURFACE	,			***************************************	
WETLAN	D DETERMINATIO	N	***************************************				
		(Circle)					
Hydrophyt	tic Vegetation Presen	t Yes N	o			(Circle)	
Wetland H	Iydrology Present	Yes? N		Is This Sa	mpling Point in a Wet	land (Yes) No	
Hydric Soi	ils Present	(Yes) N	0				
Remarks:						The state of the s	

Project/Site: Onyx Emerald Park Landfill	Date: October 28, 2005		
Applicant/Owner: Onyx Waste Services	County: Waukesha		
Investigator: <u>Jerry Kelly, Allison Oberc</u>	State: Wisconsin		
Do normal circumstances exist on this site? Yes No	Community ID: WETLAND		
Is the site significantly disturbed (Atypical Situation)? Yes (No.	Transect ID:		
Is the site a potential problem area? Yes (No	Plot ID: W10-P7		
VEGETATION	1		
Plant Species Stratum % Cover Indicator Other Plant Spec			
1. Phalaris arundinacea H 100 FACW+ 1.			
22			
3 3			
4			
5 5			
6			
7 7			
8	THE PROPERTY OF THE PROPERTY O		
99			
Percent of Dominant Species that are OBL, FACW, or FAC			
(excluding FAC-).			
Remarks:			
HYDROLOGY			
Recorded Data (Describe in Remarks) Wetland	d Hydrology Indicators  Indicators Inundated Saturated in Upper 12 inches Water Marks Drift Lines		
Field Observations:	Sediment Deposits		
	Drainage Patterns in Wetlands Secondary Indicators (2 or more required)		
Depth to Free Water in Pit: > 18 (in)	Oxidized Root ChannelsWater-Stained Leaves		
Depth to Saturated Soil: 718 (in)	Local Soil Survey Data FAC-Neutral Test Other (explain in remarks)		
Remarks:			
	,		

Map Unit N	ame:							
(Series and	Phase): MONTGO	MERY SILTY	Drainage Class	PD				
Taxonomy (Subgroup) TYPIC HAPLA QUOLLS					Field Observations Confirm Mapped Type? (Yes) No			
Profile Desc	ription							
Depth (inches)	Horizon	Matrix Color Munsell Moist	Conc Color	entration	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.		
0>18		10YR 2/1	*****		. African	<u> 510 L</u>		
		•						
***************************************						**************************************		
	PA-CA							
Hydric Soil	Indicators:							
***************************************	tosol			oncretions				
	tic Epipedon lidic Odor		H O:	igh Organic i ganic Streak	Content in Surface Layer ting in Sandy Soils	in Sandy Soil		
	ic Moisture Regime		<u>XL</u> i	<ul> <li>∠ Listed on Local Hydric Soils List</li> <li>∠ Listed on National Hydric Soils List</li> </ul>				
	ucing Conditions yed or Low-Chroma C	olors		sted on Natio her	onal Hydric Soils List			
Remarks:	A12-THICK	NARK SURFAC	٤.	····				
remarks.								
WETLAND	DETERMINATIO	N						
		(Circle)						
	e Vegetation Present	Yes No	)			(Circle)		
-	drology Present	(Yes) No	)	Is This Sa	mpling Point in a Wetl	and (Yes) No		
Hydric Soil	s Present	(Yes) No	)					
Remarks:								

(1987 COE Wetland Delineation M	lanual)						
Project/Site: Onyx Emerald Park Landfill	Date: October 28, 2005						
Applicant/Owner: Onyx Waste Services	County: Waukesha						
Investigator: Jerry Kelly, Allison Oberc	State: Wisconsin						
Do normal circumstances exist on this site? Yes No	Community ID: UPLAND						
Is the site significantly disturbed (Atypical Situation)? Yes (No)	Transect ID:						
Is the site a potential problem area? Yes (No)	Plot ID: 610-P8						
VEGETATION							
Plant Species Stratum % Cover Indicator Other Plant Speci	ies Stratum % Cover Indicator						
	max H L5 UPL						
2	mofficinale H <5 FACU						
3 3							
4							
5 5							
6							
7 7							
8 8							
99							
Percent of Dominant Species that are OBL, FACW, or FAC							
(excluding FAC-).							
HYDROLOGY							
Recorded Data (Describe in Remarks) Wetland	1 Hydrology Indicators						
Stream, Lake, or Tide Gauge  X Aerial Photographs	Primary IndicatorsInundated						
Other No Recorded Data Available	Saturated in Upper 12 inches Water Marks						
	Water Warks Drift Lines						
Field Observations:	Sediment Deposits Drainage Patterns in Wetlands						
Depth of Surface Water: (in) Seconds	Secondary Indicators (2 or more required)						
Depth to Free Water in Pit:	Oxidized Root Channels Water-Stained Leaves						
Depth to Saturated Soil: > / 8 (in)	Local Soil Survey Data						
	FAC-Neutral Test Other (explain in remarks)						
Remarks:	Опот (одрани и тепана)						
TOTALING.							

Map Unit Name:	Map Unit Name:							
(Series and Phase):	1ATINTON	J SILT LE	Drainage Class	500				
Taxonomy (Subgroup)_	AQUIC	NRGIUD	Field Observations Confirm Mapped Typ	pe? (Yes) No				
Profile Description								
Depth (inches) Horizon		trix Color nsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.			
0-6	·····	OYRBA			<u> </u>			
<u>6&gt;18</u>	<u> </u>	07R3/3		<b>Late</b> .	SIL			
				·····				
	<del></del>							
Hydric Soil Indicators:  Histosol  Histic Epipedon  Sulfidic Odor  Aquic Moisture Regime  Reducing Conditions  Gleyed or Low-Chroma Colors  Concretions  High Organic Content in Surface Layer in Sandy Soil  Organic Streaking in Sandy Soils  Listed on Local Hydric Soils List  Listed on National Hydric Soils List  Other								
Remarks:	Remarks:							
WETLAND DETERMINATION								
		(Circle)						
Hydrophytic Vegetatio	n Present	Yes <u>No</u>			(Circle)			
Wetland Hydrology Pr	esent	Yes (No		Sampling Point in a Wet	land Yes (No)			
Hydric Soils Present		Yes <u>N</u> o						
Remarks:								

		(1987 C	OE Welland	i Delineation Ma	muar)			
Project/Site: Onyx Emerald Park Landfill						Date: October 28, 2005		
Applicant/Owner: Onyx Waste Services						V	<u>Vaukesha</u>	
Investigator: Jerry Kelly, Allison Oberc						V	Visconsin	<del></del>
Do normal circumstances exist on this site? (Yes) No						ity ID: <u>\</u>	UETLANI	<u>}</u>
Is the site significantly dist	urbed (At	ypical Situ	ation)? Yo	es (No)	Transect	ID:		
Is the site a potential proble	em area?		Yo	es (No)	Plot ID:_	WIC	>-P9	
VEGETATION								
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	}	Stratum	% Cover	Indicator
1. Salix exigan	_ 5	20	08L	1. Solidogo co	madenisis.	14	10	FACU
1. Salix exigual 2. Cormus racemosa 3. Cormus stolonifera	<u> </u>	<u>3~0</u>	FAC.W-	2				
3. Cornus stolonifera	<u> </u>	20	FACW	3			<del></del>	<del></del>
4. Poa pratensis	<u> -\</u>	40	FAC-	4				
s. Phalaris arundinace	on H	_20_	EVCM-	F 5			<u></u>	
6	W	***************************************		6				
7				7				***************************************
8		·		8	······		<u></u>	
9				9				
Percent of Dominant Species that	are OBL, F	ACW, or FA	С					***************************************
(excluding FAC-). 80%								
Remarks:								
TIMBLO COM								
HYDROLOGY  Recorded Data (Desc	ribe in Rer	narks)	····	Wetland I	Tydrology Ind	icators		
Stream, Lak	e, or Tide (	•			Primary Indicators			
X Aerial Photo	ographs			-	Inunda		per 12 inches	
Other No Recorded Data Available						Marks	per 12 menea	'
					Drift I			
Field Observations:						ent Depos	sits ns in Wetland	ls
Depth of Surface Water: O (in) Seco					/ Indicators (2	or more r	equired)	
Depth to Free Water in Pit: > 18 (in)					***************************************	ed Root ( -Stained I		
Depth to Saturated Soil: (in)						-Stainea i Soil Surv		
				-	🔀 FAC-1	Neutral Te	est	
					Other	(explain i	n remarks)	
Remarks:								ļ

Map Unit Name:							
(Series and Phase):	TEOMERY SILTY	<u> </u>	Drainage Class	PD			
	YPIC HAPLAQU	Field Observations Confirm Mapped Type? Yes No					
Profile Description							
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentra Color	ition	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.		
<u>0&gt;18</u>	TOLBTY			,	SICL		
			<del>-</del>				
		***************************************	***************************************				
		***************************************			B		
Hydric Soil Indicators:							
Histosol Histic Epipedon	-	ConcretionsHigh Organic Content in Surface Layer in Sandy Soil					
Sulfidic OdorAquic Moisture Regir		Organic Streaking in Sandy Soils					
Reducing Conditions	•	Listed on Local Hydric Soils List Listed on National Hydric Soils List					
Gleyed or Low-Chron	na Colors	Other					
Remarks: A 12 THIC	K DARK SURFA	ICE					
WETLAND DETERMINA	TION						
VVLID TO DETERMINA	(Circle)						
Hydrophytic Vegetation Pre	io l			(Circle)			
And the state of t		l l	Is This Sampling Point in a Wetland (Yes) No				
Hydric Soils Present	(Ŷes) N		ĺ		There were		
Remarks:		<u> </u>					

Project/Site: Onyx Emerald Park Landfill	Date: October 28, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: <u>Jerry Kelly, Allison Oberc</u>	State: Wisconsin
Do normal circumstances exist on this site? (Yes) No	Community ID: UPLAND
Is the site significantly disturbed (Atypical Situation)? Yes No	Transect ID:
Is the site a potential problem area? Yes (No)	Plot ID: WIO-PIO
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant	Species Stratum % Cover Indicator
2. Solidago conadensis H 20 FACU 2.  3. 4. 5. 6. 7. 8.	ria Virginiana 14 65 FAC
Stream, Lake, or Tide GaugeXAerial PhotographsOtherNo Recorded Data Available  Field Observations:	etland Hydrology Indicators imary Indicators
Remarks:	

Map Unit N	Map Unit Name:							
(Series and)	Phase): <u>5 AYLE</u>	SVILLE SIL	Drainage Class	<u>u</u> u				
Taxonomy (	Subgroup) TYPIC	: HAPLUDAL	Field Observations Confirm Mapped Type? Yes (No)					
Profile Desc	ription							
Depth (inches)	Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.			
0>18		10YR 2/1			SICL			
					Provide the second seco			
			***************************************	***************************************	***************************************			
Hydric Soil l			0					
His	tosol tic Epipedon		ConcretionsHigh Organic Content in Surface Layer in Sandy Soil					
	fidic Odor nic Moisture Regime	-	Organic Streaking in Sandy Soils Listed on Local Hydric Soils List					
Red	lucing Conditions yed or Low-Chroma C		Listed on National Hydric Soils List Other					
	yed of Low-Cinoma C	otors	Other					
Remarks:	A 12 THICK	DARK SURF	MCE.					
WETLAND DETERMINATION								
		(Circle)						
Hydrophyti	c Vegetation Present	t Yes No	?		(Circle)			
Wetland Hy	ydrology Present	Yes (No	Is This San	npling Point in a Wetl	and Yes No			
Hydric Soil	s Present	(Yes) No						
Remarks:								

Project/Site: Onyx Emeral					Date: October 28, 2005			
Applicant/Owner: Onyx Waste Services					County: Waukesha			
Investigator: Jerry Kelly, Allison Oberc					State: Wisconsin			
Do normal circumstances exist on this site? Yes N					Community ID: UPLAND			
Is the site significantly disturb				Yes (No)	Transect ID:			
Is the site a potential problem	·	J 10.11	•	Yes (No)	Plot ID: WII-PI			
VEGETATION								
<u> </u>	tratum	% Cover	Indicator	Other Plant Species	Stratum % Cover Indicator			
1. Triticum aestivum	<u></u>				X H 45 UPL			
2				•				
3				3				
				4				
5								
6								
7				7				
				8				
9								
Percent of Dominant Species that are								
(excluding FAC-). O %			***************************************					
Remarks:								
		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	· · · · · · · · · · · · · · · · · · ·					
HYDROLOGY								
Recorded Data (Describ Stream, Lake,		,		Wetland Hy Primary Ind	/drology Indicators			
X Aerial Photogr		Jungo			Inundated			
Other					Saturated in Upper 12 inches			
No Recorded Data Avai	lable			***********	Water Marks Drift Lines			
Field Observations:					Sediment Deposits			
Depth of Surface Water: (in)				(in) Sacarda	Drainage Patterns in Wetlands			
				Secondar, .	Secondary Indicators (2 or more required) Oxidized Root Channels			
\					Water-Stained Leaves			
Depth to Saturated Soil:		·····/	₹ \$	(in)	Local Soil Survey Data			
				•	FAC-Neutral TestOther (explain in remarks)			
Remarks:	·····				Outer (exprain in tematra)			

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ν.	8 Y		
. 3	٠,		

Map Unit Nam	ne:						
(Series and Pha	ase): MONTGON	IERY SILTY CLA	Drainage Class	PD			
Taxonomy (Sul	bgroup)	ic Happaa	Field Observations Confirm Mapped Type	? (Ves) No			
Profile Descrip	otion_			/			
<del>}</del>	Iorizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.		
<u>0-8</u>	***************************************	10YR 2/1		***************************************	51CL		
8>18		575/1	10YR 6/8	FEW/PROMIMENT	SICL.		
	***************************************		***************************************	***************************************			
			**************************************	***************************************			
		***************************************	***************************************		***************************************		
Hydric Soil Indicators: HistosolHistic EpipedonSulfidic OdorAquic Moisture RegimeReducing ConditionsGleyed or Low-Chroma Colors			Concretions High Organic Content in Surface Layer in Sandy Soil Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other				
Remarks: All - DEPLETED BELOW DARK SURFACE							
WETLAND DETERMINATION							
		(Circle)					
Hydrophytic \	Vegetation Present	Yes (No			(Circle)		
Wetland Hydr	ology Present	Yes No	Is This San	opling Point in a Wetla	and Yes No		
Hydric Soils P	resent 'resent	(Yes) No					
Remarks:							

			OI WEHAIIO	Defineation Manu	1		·
Project/Site: Onyx Emerald Park Landfill					Date: Oct	tober 28, 2005	
Applicant/Owner: Or	ıyx Waste	Services			County:	Waukesha	
Investigator: <u>Jerry Kelly</u>	, Allison	Oberc			State:	Wisconsin	
Do normal circumstances exist on this site? Yes No					Community	D: WET LA	au
Is the site significantly dist	urbed (At	ypical Situ	ation)? Ye	s No	Transect ID	):	
Is the site a potential proble	em area?		Ye	s (No)	Plot ID:	W11-PZ	<del> </del>
VEGETATION							
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stra	stum % Cover	Indicator
1. Carex stricta				1. Cormus stolo			
2. Phalaris arundinacea							
3. Aster lateriflorus	14	20	FACW-	3	······································		
4. Solidago gigantea	1-1	20	FACW	4			
5. Salix exidua		25	08r	5			
6				6			
7	<del>*************************************</del>	<del></del>		7		***************************************	* ************************************
8				8			•
9	····		•	9	••••••	······································	
Percent of Dominant Species that		ACW, or FA	C				
(excluding FAC-).	<u> </u>		<del>ng majong ky na lipada</del> a ninindoko kadambalanbalanbalanbalanba	**************************************			***************************************
Kemarks:							
HYDROLOGY							
Recorded Data (Desc	ribe in Ren	narks)		Wetland Hyd	lrology Indicat	ors	
Stream, Lak		3auge		Primary Indi		3	
<u>X</u> Aerial Photo	ograpns				Inundated Saturated	a Lin Upper 12 inch	es
No Recorded Data A	vailable				Water Ma	arks	
Field Observations:					Drift Line Sediment	es Deposits	
Depth of Surface Wa	) Secondary Ir	Drainage	Patterns in Wetla	nds			
•			more required) Root Channels				
Depth to Free Water  Depth to Saturated So		<u> </u>	(,,,,		Water-St	ained Leaves	
Debut to saturated 20	ort:	***************************************	/ Ø (in)	′	Local Sol	il Survey Data  tral Test	
					Administration	plain in remarks)	
Remarks:							
							;

SOILS							
Map Unit Name:							
(Series and Phase): MONT	GOMERY SILTY	<u>l</u> Drai	nage Class	PD			
Taxonomy (Subgroup)	varls		Field Observations Confirm Mapped Type? (Yes) No				
Profile Description				·			
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration		centration ndance/Contrast	Texture, Concretions, Structure, etc.		
<u>6-4</u>	10153N	-		»-	5104		
4>18	N 3/0	and			in ha		
					,		
	w	******		·····	-		
	_						
					,		
Hydric Soil Indicators:							
Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other							
Remarks: All DEPLETED BELOW DARK SURFACE							
WETLAND DETERMINATION							
	(Circle)						
Hydrophytic Vegetation Pre	esent Yes N	о			(Circle)		
				g Point in a Wet	lland (Yes) No		
Hydric Soils Present	(Yes) N	бо					
Remarks:							

		(1707 C	OE Wettand	Delineation Ma	1441)		
Project/Site: Onyx Emer	rald Park I	_andfill			Date: October	28, 2005	
Applicant/Owner: On	yx Waste	Services		County:	Waukesha	and distance of the second	
Investigator: <u>Jerry Kelly</u>	, Allison (	Oberc			State:	Wisconsin	
Do normal circumstances e	xist on thi	s site?	Ye	s) No	Community ID:	WETCAN	1 <u>0</u>
Is the site significantly dist	urbed (Aty	pical Situ	ation)? Ye	s (No)	Transect ID:		
Is the site a potential proble	m area?		Ye	s (No)	Plot ID: W	1-P3	
VEGETATION							
Plant Species	Stratum	% Cover	Indicator	Other Plant Species	Stratum	% Cover	Indicator
1. Carex stricta			OBIT		arosseserratus H	10	FACW
2. Spartina pectinata		<u> 20 </u>	EVCM+	2.50/12/09 mi	daelliiH_	45"	OBL
3			······	3			
4,				4			
5				5			***************************************
6	*****	***************************************	<u></u>	6			
7			NAMES OF THE PARTY	7		***************************************	
8	***************************************	***************************************		8			·
9			***************************************	9,		**************************************	*****
Percent of Dominant Species that		CW, or FA	С				
(excluding FAC-). {OO%	i						
Remarks:							
HYDROLOGY	<del></del>	···					
Recorded Data (Descr	ibe in Rem	arks)		Wetland H	ydrology Indicators		
Stream, Lake	, or Tide G			Primary Inc	dicators		
X Aerial Photos					Inundated Saturated in Up	per 12 inches	3
No Recorded Data Av	'ailable			<del></del>	Water Marks Drift Lines		
Field Observations:					Sediment Depos		
Depth of Surface Water	er:		<u> </u>	Secondary	Drainage Patter Indicators (2 or more r		ds
Depth to Free Water is	n Pit:	>	(in)	1	Oxidized Root ( Water-Stained I	Channels	
Depth to Saturated So.	il:		(in)		Local Soil Surv	ey Data	
					FAC-Neutral To		
Remarks:							

Map Unit 1	Map Unit Name:							
(Series and Phase): MONTGOMERY SILTY CLRY LOAM					Drainage ClassP			
Taxonomy (Subgroup) TYPIC HAPLAQUELLS				Field Observations Confirm Mapped Ty	Field Observations Confirm Mapped Type? (Yes) No			
Profile Des	cription					To come to		
Depth (inches)	Horizon	Matrix Color Munsell Moist	Conc Colo	entration	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.		
0-2		107R3/3		water-	politica de la constantina della constantina del	514		
2-12		10YR3/1		, mar.	News Control	SICL		
12>18		5645/1		ريسين	-			
	***************************************		***********	······································				
Hydric Soil	Indicators:							
	stosol stic Epipedon	***************************************	***************************************	oncretions	Content in Surface Laye	a in Condu Cult		
Su	lfidic Odor		0	rganic Streak	ing in Sandy Soils	i in Sandy Son		
	uic Moisture Regime ducing Conditions		XListed on Local Hydric Soils List Listed on National Hydric Soils List					
	eyed or Low-Chroma C	olors		ther	Mai Hydrio Bonis Dist			
Remarks: All DEPLETED BELCAU DARK SURFACE								
WETLAND DETERMINATION								
		(Circle)						
Hydrophyt	ic Vegetation Present	Yes No	0			(Circle)		
Wetland H	ydrology Present	(Yes) No	c	Is This Sa	mpling Point in a Wet	land (Yes) No		
Hydric Soi	ls Present	(Yes) No	)					
Remarks:								

lany		
Date: October 28, 2005		
County: Waukesha		
State: Wisconsin		
Community ID: UPLAND		
Transect ID:		
Plot ID: WII-P4		
Stratum % Cover Indicator		
apsus H 5 UPL		
Ficinale H <5 FACU		
A		
rology Indicators		
Primary Indicators		
InundatedSaturated in Upper 12 inches		
Water Marks		
Drift Lines Sediment Deposits		
Sediment DepositsDrainage Patterns in Wetlands		
idicators (2 or more required)		
Oxidized Root ChannelsWater-Stained Leaves		
Local Soil Survey Data FAC-Neutral Test		
PAC-Neutral Test Other (explain in remarks)		

Map Unit Name:						
(Series and Phase): Mo NTGOW	ERY SILTY CL	Drainage Class	<u> </u>			
Taxonomy (Subgroup) Typi	c HAPLAQUE	Field Observations Confirm Mapped Typ	e? Yes (No)			
Profile Description			<u> </u>			
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.		
<u>6-8</u>	JOYR Z/1			51CL		
3>18	10/R3/2	, غم وحقق	epholologic .	SICL		
pomining of the second						
	***************************************			VOOLANDE		
	A	•				
		***************************************				
Hydric Soil Indicators:						
Histosol		Concretions				
Histic Epipedon  Sulfidic Odor	*********		Content in Surface Layer ng in Sandy Soils	in Sandy Soil		
Aquic Moisture RegimeReducing Conditions		Listed on Local	Hydric Soils List nal Hydric Soils List			
Gleyed or Low-Chroma C		Other	nai riydric Sons List			
Remarks:						
WETLAND DETERMINATION						
	(Circle)					
Hydrophytic Vegetation Present	Yes (No			(Circle)		
Wetland Hydrology Present	Yes No	Is This San	pling Point in a Wetl	and Yes No		
Hydric Soils Present	Yes (No)	>		<del></del> -		
Remarks:						

Project/Site: Onyx Emerald Park Landfill	Date: November 29, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: Jerry Kelly	State: Wisconsin
Do normal circumstances exist on this site? Yes No	Community ID: UPLAND
Is the site significantly disturbed (Atypical Situation)? Yes (No.	Transect ID:
Is the site a potential problem area? Yes No	Plot ID: W12 - P1
VEGETATION	
Plant Species Stratum % Cover Indicator Other Plant Spec	cies Stratum % Cover Indicator
1. Medicago sativa H 60 UPL 1. Taraxacum	officinals H 10 FACU
2 Triticum asstingen H 20 UPL 2 Pou prat	tensis H 10 FAC-
44	
5 5	
6 6	
7 7	
8 8	
9 9	
Percent of Dominant Species that are OBL, FACW, or FAC	
(excluding FAC-). ( ) %	
Remarks:	
HYDROLOGY	
Recorded Data (Describe in Remarks) Wetlan	nd Hydrology Indicators y IndicatorsInundatedSaturated in Upper 12 inchesWater Marks
Field Observations:	Drift LinesSediment Deposits
Au. (1)	Drainage Patterns in Wetlands lary Indicators (2 or more required)
Depth to Free Water in Pit: > 18 (in)	Oxidized Root Channels
Depth to Saturated Soil: \(\simegl) \(\frac{18}{2}\) (in)	Water-Stained Leaves Local Soil Survey Data FAC-Neutral Test Other (explain in remarks)
Remarks: NO INDICATORS COSSERVES	

Map Unit N	lame:					
(Series and	Phase): SAYLESYI	LLE SILT LOP	<del>YM</del>		Drainage Class	ND
Taxonomy (	(Subgroup) Tyl	PIC HAPLUS	<u>s</u>	Field Observations Confirm Mapped Typ	oe? Yes (No)	
Profile Desc	cription					
Depth (inches)	Horizon	Munsell Moist Colo		centration r	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.
0-12		10YR 3/2				SIL
12>18		104 R 3/3			····	5 L
		<del></del>				
Hydric Soil	Indicators:		***************************************			
	stosol stic Epipedon			oncretions	Content in Surface Layer	in Sandy Soil
Sul	Ifidic Odor uic Moisture Regime		O	rganic Streak	cing in Sandy Soils	ni bandy bon
Rec	ducing Conditions		Li	isted on Natio	al Hydric Soils List onal Hydric Soils List	
Gle	eyed or Low-Chroma C	olors	0	ther		
Remarks:					.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
ΛΛΈΤΙ ΔΝΙΓ	D DETERMINATIO	.K1				
VV II. 1 II./11 VL	J DETERMINATIO	(Circle)				
Hydrophyti	ic Vegetation Present		.) .)			(Circle)
	ydrology Present	Yes No		Is This Sa	mpling Point in a Wetl	parameter, special control of the co
Hydric Soil	-	Yes No.				und 150 (15)
Remarks:		-				

(1967 COE Welland Deini			
Project/Site: Onyx Emerald Park Landfill	Date: November 29, 2005		
Applicant/Owner: Onyx Waste Services	County: Waukesha		
Investigator: Jerry Kelly	State: Wisconsin		
Do normal circumstances exist on this site? Yes N	Community ID: WETLAND		
Is the site significantly disturbed (Atypical Situation)? Yes			
Is the site a potential problem area? Yes	6) Plot ID: W15 P2		
VEGETATION			
Plant Species Stratum % Cover Indicator Other	Plant Species Stratum % Cover Indicator		
2 Cornus stolonifera S 10 FACW 2			
3 3			
44			
5 5			
6			
7 7			
8 8			
9 9	······································		
Percent of Dominant Species that are OBL, FACW, or FAC  (excluding FAC-).			
Remarks:			
Remarks.			
HYDROLOGY			
Recorded Data (Describe in Remarks)	Wetland Hydrology Indicators		
Stream, Lake, or Tide Gauge XAerial Photographs	Primary Indicators Inundated		
Other	Saturated in Upper 12 inches		
No Recorded Data Available	Water Marks Drift Lines		
Field Observations:	Sediment Deposits		
Depth of Surface Water: (in)	Drainage Patterns in Wetlands Secondary Indicators (2 or more required)		
Depth to Free Water in Pit:	Oxidized Root Channels		
Depth to Saturated Soil:	Water-Stained Leaves Local Soil Survey Data		
	FAC-Neutral Test Other (explain in remarks)		
Remarks:	Ouici (explain in femalics)		
Norman.			

Map Unit Name:								
(Series and Phase	MONTGO	HERY SILTY	Drainage Class	PD				
Taxonomy (Subgroup) TYPIC HAPLAQUOLLS					Field Observations Confirm Mapped Type? (Yes) No			
Profile Description						The state of the s		
Depth (inches) Hori	izon	Matrix Color Munsell Moist	Conc Colo:	entration r	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.		
0>18		10YR 3/1		J-11.	walker.	SICL		
						***************************************		
		············						
		***************************************				Address to the second s		
		***************************************						
Hydric Soil Indica	tors:							
Histosol Histic Ep	inadon			oncretions	Sometome in Constitute Y	de Constant a		
Sulfidic C	Odor		O	rganic Streaki	Content in Surface Layering in Sandy Soils	in Sandy Soil		
	oisture Regime Conditions		Listed on Local Hydric Soils List Listed on National Hydric Soils List					
Gleyed or	r Low-Chroma C	olors		ther	·	,		
Remarks: A \	) - THICH	L DNEK SU	RFAC	C.				
			·					
WETLAND DE	TERMINATIO							
Thudson hustin The	rotation Duona	(Circle)				(01.1)		
Hydrophytic Veg Wetland Hydrold	=			To Thin Con-		(Circle)		
Hydric Soils Pres		Yes N		is inis sar	opling Point in a Wetl	land (Yes) No		
	9VIII	(Yes) N						
Remarks:								

Project/Site: Onyx Em	erald Park l		OIS WELLING	d Delineation Mand	Date: Novembe	er 29, 2005		
Applicant/Owner: Onyx Waste Services					County: Waukesha			
Investigator: Jerry Kelly				State: Wisconsin				
Do normal circumstances exist on this site?  Yes No					Community ID:			
Is the site significantly disturbed (Atypical Situation)? Yes No					Transect ID:			
Is the site a potential problem area?  Yes No Plot ID: W12-P3								
VEGETATION								
Plant Species	Stratum		Indicator	Other Plant Species	Stratum	% Cover	Indicator	
1. Glycine max	<u></u>	90	Obe		<u>H</u>		UPL	
2				***************************************	Ficinale H		<u>FACU</u>	
3							***************************************	
4							<del></del>	
5								
6								
7								
8			**************************************					
					***************************************			
Percent of Dominant Species that (excluding FAC-).	it are OBL, F.	ACW, or FA	.C					
Remarks:								
HYDROLOGY	······································							
Recorded Data (Des	scribe in Rer ke, or Tide (			Wetland Hyd Primary Indi	drology Indicators			
X Aerial Pho		Jauge		- Filliary flidi	Inundated			
[{	Other No Recorded Data Available				Saturated in Upper 12 inches Water Marks			
					Drift Lines	•		
Field Observations:					Sediment Deposits Drainage Patterns in Wetlands Secondary Indicators (2 or more required) Oxidized Root Channels			
Depth of Surface Water: (in)  Depth to Free Water in Pit: (in)								
710					Water-Stained Leaves			
Depth to Saturated Soil: // / / (in)					Local Soil Survey Data FAC-Neutral Test			
					Other (explain i	n remarks)		
Remarks: NO INDICE	23077	oeser	AED				•	

Map Unit Name:								
(Series and Phase): MONTGOMERY SICTY CLAY LOAM Drainage Class PD								
Taxonomy (Subgroup) TYPIC HAPLA GOOLES			Field Observations Confirm Mapped Type? Yes (No)					
Profile Description								
Depth (inches) Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Abundance/Contrast	Texture, Concretions, Structure, etc.				
0-17-	10 YR 3/2	41%.		SICE				
12>18	5Y5/2	-	and selection	C				
	•	***************************************						
	***************************************							
Hydric Soil Indicators:								
Histosol	HistosolConcretions							
Histic Epipedon Sulfidic Odor	<del></del>		Content in Surface Layer ing in Sandy Soils	in Sandy Soil				
Aquic Moisture Regime		Listed on Local	Hydric Soils List					
Gleyed or Low-Chroma	. Colors	Other	nal Hydric Soils List					
D								
Remarks:								
WETLAND DETERMINATI	ON							
	(Circle)							
Hydrophytic Vegetation Prese	ent Yes No			(Circle)				
Wetland Hydrology Present Yes N		Is This San	npling Point in a Wetl	and Yes No				
Hydric Soils Present	Yes (No	9)						
Remarks:								

(1987 COE Wetland Delin	leation (Manual)
Project/Site: Onyx Emerald Park Landfill	Date: November 29, 2005
Applicant/Owner: Onyx Waste Services	County: Waukesha
Investigator: Jerry Kelly	State: Wisconsin
Do normal circumstances exist on this site? (Yes) N	No Community ID: WETLAND
Is the site significantly disturbed (Atypical Situation)? Yes	
Is the site a potential problem area? Yes	Plot ID: <u>W1λ-P4</u>
VEGETATION	
Plant Species Stratum % Cover Indicator Other	Plant Species Stratum % Cover Indicator
1. Phalaris arundinaceu H 100 FACW+1.	
2 2	······································
3 3	
4 4	
5 5	
6 6	
7 7	
8 8	
99	
Percent of Dominant Species that are OBL, FACW, or FAC	
(excluding FAC-).	
Remarks:	
HYDROLOGY  Recorded Data (Describe in Remarks)	Wetland Hydrology Indicators
Stream, Lake, or Tide Gauge	Primary Indicators
X Aerial Photographs Other	InundatedSaturated in Upper 12 inches
No Recorded Data Available	Water Marks
	Drift LinesSediment Deposits
Field Observations:	Drainage Patterns in Wetlands
Depth of Surface Water: (in)  Depth to Free Water in Pit: (in)	Secondary Indicators (2 or more required) Oxidized Root Channels
	Water-Stained Leaves
Depth to Saturated Soil: 710 (in)	Local Soil Survey Data  A FAC-Neutral Test
	Other (explain in remarks)
Remarks:	

Map Unit N	lame:			-			
(Series and Phase): MONT GOMERY SILTY CLAY LOAM Drainage Class PD							
Taxonomy	(Subgroup)	c Hapenaua	)els	Field Observations Confirm Mapped Type? Yes No			
Profile Des	cription						
Depth (inches)	Horizon	Matrix Color Munsell Moist	Concentration Color	Concentration Texture, Concretions, Abundance/Contrast Structure, etc.			
0-10		10YR3/2-		SICL			
10>18	***************************************	10YR3/2	10486/8	MANY PROMINENT SICE			
***************************************							
Hydric Soil	Indicators:						
HisHisAqRe	Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Cisted on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other						
Remarks:	Remarks: AIZ-THICK DARK SURFACE						
WETLANI	D DETERMINATIO	N			الحصيد		
		(Circle)					
Hydrophyt	ic Vegetation Presen	t Yes No		(Circle)			
Wetland H	ydrology Present	Yes No	Is This Sa	ampling Point in a Wetland Yes No			
Hydric Soi	ls Present	(Yes) No					
Remarks:							

(1987 COE Wetland Delineation Mai			
Project/Site: Onyx Emerald Park Landfill	Date: November 29, 2005		
Applicant/Owner: Onyx Waste Services	County: Waukesha		
Investigator: Jerry Kelly	State: Wisconsin		
Do normal circumstances exist on this site? (Yes) No	Community ID: UPLAND		
Is the site significantly disturbed (Atypical Situation)? Yes No	Transect ID:		
Is the site a potential problem area? Yes No	Plot ID: 12-P5		
VEGETATION			
Plant Species Stratum % Cover Indicator Other Plant Species	Stratum % Cover Indicator		
	vota H 10 UPL		
2 Medicago sativa H 40 UPC 2 Taraxacum	officinals H <5 FACU		
3 3			
4 4			
5 5	***************************************		
6			
7 7			
8			
99			
Percent of Dominant Species that are OBL, FACW, or FAC			
(excluding FAC-).			
Remarks:			
HYDROLOGY  Recorded Data (Describe in Remarks)  Wetland H	ydrology Indicators		
Stream, Lake, or Tide Gauge Primary In	dicators		
X Aerial Photographs	Inundated		
Other No Recorded Data Available	Saturated in Upper 12 inches Water Marks		
	Drift Lines		
Field Observations:	Sediment Deposits Drainage Patterns in Wetlands		
	Secondary Indicators (2 or more required)		
Depth to Free Water in Pit:	Oxidized Root Channels		
Depth to Saturated Soil: > 18 (in)	Water-Stained LeavesLocal Soil Survey Data		
	FAC-Neutral Test		
	Other (explain in remarks)		
Remarks: NO INDICATORS OBSERVED			

Concentration   Concentratio	Map Unit Name:								
Profile Description	(Series and Phase): MARTI	NTON SILT (	<u> </u>	Drainage Class	SPD				
Depth (inches) Horizon Munsell Moist Color Munsell Moist Color Abundance/Contrast Structure, etc.  D-12. 10 YR 3/2	Taxonomy (Subgroup) A CR	nc Argundo	LLS						
Color   Abundance/Contrast   Structure, etc.	Profile Description				34,54				
Hydric Soil Indicators:  Histosol Histic Epipedon Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors  WETLAND DETERMINATION  Wetland Hydrology Present Hydro Soils Present Yes No Hydric Soils Present Hydro Soils Pr	II = -			•					
Hydric Soil Indicators:  Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime A Listed on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other  Remarks:  WETLAND DETERMINATION  (Circle) Hydrophytic Vegetation Present Yes No Wetland Hydrology Present Yes No Hydric Soils Present Yes No  Is This Sampling Point in a Wetland Yes No Hydric Soils Present Yes No	0-12	10 YR 3/2			514				
Histosol  Histic Epipedon Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors  WETLAND DETERMINATION  (Circle)  Hydrophytic Vegetation Present Wetland Hydrology Present Yes No Hydric Soils Present Yes No Hydric Soils Present Yes No  Concretions High Organic Content in Surface Layer in Sandy Soil Content in Surface Layer in Sandy Soil High Organic Content in Surface Layer in Sandy Soil Content in Surface Layer in Sandy Soil High Organic Content in Surface Layer in Sandy Soil Organic Streaking in Sandy Soils  Organic Streaking in Sandy Soils List on Local Hydric Soils List  Listed on National Hydric Soils List Other  (Circle)  Hydric Soils Present Yes No  Is This Sampling Point in a Wetland Yes No  Hydric Soils Present Yes No	12>18	10 YR 3/3	*******	Angelon M	SIL				
Histosol  Histic Epipedon Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors  WETLAND DETERMINATION  (Circle)  Hydrophytic Vegetation Present Wetland Hydrology Present Yes No Hydric Soils Present Yes No Hydric Soils Present Yes No  Concretions High Organic Content in Surface Layer in Sandy Soil Content in Surface Layer in Sandy Soil High Organic Content in Surface Layer in Sandy Soil Content in Surface Layer in Sandy Soil High Organic Content in Surface Layer in Sandy Soil Organic Streaking in Sandy Soils  Organic Streaking in Sandy Soils List on Local Hydric Soils List  Listed on National Hydric Soils List Other  (Circle)  Hydric Soils Present Yes No  Is This Sampling Point in a Wetland Yes No  Hydric Soils Present Yes No									
Histosol  Histic Epipedon Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors  WETLAND DETERMINATION  (Circle)  Hydrophytic Vegetation Present Wetland Hydrology Present Yes No Hydric Soils Present Yes No Hydric Soils Present Yes No  Concretions High Organic Content in Surface Layer in Sandy Soil Content in Surface Layer in Sandy Soil High Organic Content in Surface Layer in Sandy Soil Content in Surface Layer in Sandy Soil High Organic Content in Surface Layer in Sandy Soil Organic Streaking in Sandy Soils  Organic Streaking in Sandy Soils List on Local Hydric Soils List  Listed on National Hydric Soils List Other  (Circle)  Hydric Soils Present Yes No  Is This Sampling Point in a Wetland Yes No  Hydric Soils Present Yes No		***************************************	***************************************						
Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Sulsted on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other  Remarks:  WETLAND DETERMINATION  (Circle) Hydrophytic Vegetation Present Yes No Is This Sampling Point in a Wetland Yes No Hydric Soils Present Yes No Hydric Soils Present Yes No Hydric Soils Present Yes No									
Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Sulsted on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other  Remarks:  WETLAND DETERMINATION  (Circle) Hydrophytic Vegetation Present Yes No Is This Sampling Point in a Wetland Yes No Hydric Soils Present Yes No Hydric Soils Present Yes No Hydric Soils Present Yes No									
Histosol Concretions Histic Epipedon High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Sulsted on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors Other  Remarks:  WETLAND DETERMINATION  (Circle) Hydrophytic Vegetation Present Yes No Is This Sampling Point in a Wetland Yes No Hydric Soils Present Yes No Hydric Soils Present Yes No Hydric Soils Present Yes No									
High Organic Content in Surface Layer in Sandy Soil Sulfidic Odor Organic Streaking in Sandy Soils Aquic Moisture Regime Alisted on Local Hydric Soils List Reducing Conditions Listed on National Hydric Soils List Gleyed or Low-Chroma Colors  WETLAND DETERMINATION  (Circle)  Hydrophytic Vegetation Present Yes No Is This Sampling Point in a Wetland Yes No Hydric Soils Present Yes No Hydric Soils Present Yes No	Hydric Soil Indicators:								
Sulfidic Odor Aquic Moisture Regime Reducing Conditions Gleyed or Low-Chroma Colors  WETLAND DETERMINATION  (Circle)  Hydrophytic Vegetation Present Wetland Hydrology Present Yes No Hydric Soils Present Yes No  Organic Streaking in Sandy Soils Listed on Local Hydric Soils List Listed on National Hydric Soils List Other  (Circle)  Is This Sampling Point in a Wetland Yes No  Hydric Soils Present Yes No		Vicilitation		Secretary to Constant Yes					
Reducing Conditions Gleyed or Low-Chroma Colors  Cother  WETLAND DETERMINATION  (Circle)  Hydrophytic Vegetation Present  Yes  No  Wetland Hydrology Present  Yes  No  Hydric Soils Present  Yes  No  Hydric Soils Present  Yes  No  Hydric Soils Present  Yes  No  Listed on National Hydric Soils List  Other  (Circle)  Is This Sampling Point in a Wetland  Yes  No  Hydric Soils Present  Yes  No  Hydric Soils Present  Yes  No  Hydric Soils Present  Circle)  Is This Sampling Point in a Wetland  Yes  No  Hydric Soils Present  Yes  No	LSulfidic Odor		Organic Streaki	ing in Sandy Soils	in Sandy Soil				
Gleyed or Low-Chroma Colors  Remarks:  WETLAND DETERMINATION  (Circle)  Hydrophytic Vegetation Present Yes No  Wetland Hydrology Present Yes No  Hydric Soils Present Yes No  Hydric Soils Present Yes No		<u>&gt;</u>							
WETLAND DETERMINATION  (Circle)  Hydrophytic Vegetation Present Yes No  Wetland Hydrology Present Yes No  Hydric Soils Present Yes No  Is This Sampling Point in a Wetland Yes No  Hydric Soils Present Yes No		olors		······································					
(Circle)  Hydrophytic Vegetation Present Yes No (Circle)  Wetland Hydrology Present Yes No Is This Sampling Point in a Wetland Yes No Hydric Soils Present Yes No	Remarks:								
(Circle)  Hydrophytic Vegetation Present Yes No (Circle)  Wetland Hydrology Present Yes No Is This Sampling Point in a Wetland Yes No Hydric Soils Present Yes No									
(Circle)  Hydrophytic Vegetation Present Yes No (Circle)  Wetland Hydrology Present Yes No Is This Sampling Point in a Wetland Yes No Hydric Soils Present Yes No									
Hydrophytic Vegetation Present Yes No (Circle)  Wetland Hydrology Present Yes No Is This Sampling Point in a Wetland Yes No Hydric Soils Present Yes No	WEILAND DEIERWINATIO								
Wetland Hydrology Present Yes No Is This Sampling Point in a Wetland Yes No Hydric Soils Present Yes No	Undrophytic Vegetation Present				(0)				
Hydric Soils Present Yes (No)		(	Ic Thic San	enline Doint in a Wetle	· · · · · · · · · · · · · · · · · · ·				
	- <del></del>	and the same		is this Sampling Point in a Wetland Yes No					
Remarks.			<u> </u>	***************************************					
li de la companya de	Remarks.								

Veolia ES Emerald Park Landfill December 1, 2005 Revised December 8, 2008 Wetland Determination and Delineation City of Muskego, Waukesha County, Wisconsin NRC Project # 05-235

#### APPENDIX B

MINUTES FROM WDNR FIELD MEETING; NOVEMBER 12, 2007





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#### **MEETING MINUTES**

SUBJECT: Wetland Boundary Review / Navigability Review – Emerald Park Landfill, Veolia ES	DATE/TIME: Monday, November 12, 2007 / 9:00 am				
PROJECT: Emerald Park Landfill Expansion	LOCATION: Emerald Park Landfill, Muskego, WI				
ATTENDEES: Ms. Pamela Schense, WDNR; Mr. Jay Warzinski, Veolia ES, Mr. James Dunham, Veolia ES, Mr. Brian Karczewski, Natural Resources Consulting, Inc., Mr. Douglas Genthe, RMT, Inc., Mr. Mark Torresani, RMT, Inc.					

Meeting was held with Ms. Pamela Schense to field review:

- 1) The wetland boundaries within and adjacent to the proposed expansion footprint; and
- 2) The farm ditches within and adjacent to the proposed expansion footprint.
- Pam Schense indicated that she did receive our opinion paper regarding navigability of the farm ditches within the expansion footprint. She said that she was not aware of the Department dealing with or addressing the applicability of a drainage district with relation to the navigability exemption for farm ditches. This discussion will continue internally within the WDNR.
- 2) General concurrence regarding the wetland boundaries was obtained. Small changes to the north side of wetland W-4 need to be made. I will visit the site on Monday, November 19<sup>th</sup> to make the necessary changes. Jim will have a survey crew follow up and locate the new flags. It does not appear that this change, considered minor in extent, will impact the proposed expansion.
- 3) Questions regarding a previously delineated area, wetland W-5, were addressed in the field. Pam agreed that there did not appear to be any indicators of wetland in the area. However, she would like a farm service agency crop slide review completed to show that the area was consistently farmed. If so, she will consider the area upland.
- 4) Pam agreed with arguments presented in the field that Pond P-6 is not wetland. This area is now considered non-navigable and non-wetland and does not require further evaluation during the practical alternatives analysis process under NR 103.
- 5) Questions were raised about the field, currently in forage production, located south of the east-west reach of D-2 and west of the north-south reach of D-2. This area has been delineated by Jerry Kelly as wetland in 1996 and in 2005. Pam agreed that the area does not appear to have the characteristics of wetland. She asked if the area could remain fallow in the Spring of 2008 and if we could revisit the issue at that time.
- 6) Questions were raised about another potential upland area within the heart of wetland 9 located to the south of the area addressed in point 5 and west of the north-south reach of D-2. This area appears to have upland characteristics which Pam agreed with in the field. However, limited information is available to clearly prove an upland condition since it is farmed and the soils are hydric. Pam is willing to consider its removal from wetland status. She will get back to me and let me know if this is possible from the Department's position.

7) If the argument regarding the area being part of a drainage district is not accepted by the WDNR, Pam agreed to previously marked locations of navigability for D-4, and our opinion of where navigability starts for D-2 (approximately 240 feet south of the 90 degree bend in D-2). This location needs to be surveyed and presented to Pam on a map for agreement. This should be done after any discussions regarding the drainage district issue play out.

Veolia ES Emerald Park Landfill December 1, 2005 Revised December 8, 2008 Wetland Determination and Delineation City of Muskego, Waukesha County, Wisconsin NRC Project # 05-235

#### APPENDIX C

**FSA AERIAL REVIEW** 

### WETLAND DOCUMENTATION RECORD Remotely Sensed Data Summary

Site Identifi	cation No		(Tract No. + Site No.)	for worken previously
Date	Rainfall (in)	Farm Service A	gency Aerial Color Slide Data	
(Mo./Yr)	+D/N/W (Apr-June ave.	Interpretation- (	codes listed in box below)	colonia de Princis - Wilder
0.79-7-	=	V 2/ 1/	·	
<u>. 1990</u> .997	<u>4,44 (K)</u> 3 62 (N)	Y 7 66	,	
11112	$\frac{-0.02100}{(1.77.70)}$	- <del>1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 </del>		
1993	1.5.73 ( W)	7 4 66		
1994	<u> </u>		to expect a those ground in edge	·
1995	2-64 (N)	<u> </u>		
<u>1999</u> 1997	<u> </u>	<u> </u>		
1408	7.77710	y 5 6a		
1999	790 (VI)	Y 1, 3, 64		
2000	<u> </u>	<u> </u>	100 Strandism of triems	os compost ursu began to s c. to 14-5 asks
2001	<u> </u>	<u> </u>	3/fection descrip	e to pers asked
<u> 2002                                 </u>	3.29 (N)	Y 5/ 6d Y 3, &d		
2021	5.35 (W)	N		
2045	<u> </u>	<u>N</u> .		
2600	4.46 (W)	N	- V	
				,
A * YDY4		; :		
Air Photo				•
	tes wetness (+ = stro ow crop or tilled)	ng, -= weak)	N = NO wetness signature NC = not cropped (hay, pasture, i	dle, etc.)
<u>Peature</u>	6a	dor = dark green = light green	Manipulation 7a = ditched 7b = tiled	Other write explanation
= bare spot	6c	= yellow	7c = filled	
= drowned crop		= brown	7d = tree/brush removal	
= planted late	<u>6e</u>	= black	8 = plowed/tilled	

new armed circumstrince in our surrounding wis

Farm Service Agency Aerial Color Slide Review Veolia ES Emerald Park Landfill, LLC

T-5-N, R-20-E, Section 36; City of Muskego, Waukesha County, Wisconsin

Description of interest: Area identified as Wetland W-5 in previous wetland investigations.

	Monthl	Monthly Rainfall in Inches *						
Year	April	May	June	Total	Mean (April - May)	Relative Wetness	Cropped?	Wetness Signature?
1981	4.48	1.08	2.84	8.40	2.80	N		
1982	4.07	4.41	2.67	11.15	3.72	N		
1983	2.68	3.96	2.83	9.47	3.16	N		
1984	3.20	4.57	5.90	13.67	4.56	W		
1985	1.48	1.82	2.28	5.58	1.86	D		
1986	1.88	2.50	6.08	10.46	3.49	N		
1987	4.20	3.50	1.73	9.43	3.14	N		
1988	3.26	0.69	1.33	5.28	1.76	D		
1989	1.98	3.53	2.60	8.11	2.70	N		
1990	1.98	5.49	5.84	13.31	4.44	W	CR	Y
1991	3.97	2.35	4.53	10.85	3.62	N	CR	Y
1992	2.82	0.93	1.55	5.30	1.77	D	CR	Y
1993	7.14	3.46	6.59	17.19	5.73	w	CR	Y
1994	1.26	1.30	4.20	6.76	2.25	D	CR	Y
1995	4.15	3.14	0.62	7.91	2.64	N	CR	Y
1996	3.10	2.50	8.69	14.29	4.76	W	CR	Y
1997	1.48	3.45	5.26	10.19	3.40	N	CR	Υ
1998	3.64	3.72	5.16	12.52	4.17	N	CR	Y
1999	6.38	5.23	6.10	17.71	5.90	w	CR	Y
2000	2.84	8.54	4.78	16.16	5.39	w	CR	Y
2001	3.80	4.79	4.61	13.20	4.40	w	CR	Y
2002	4.15	2.48	4.63	11.26	3.75	N	CR	Y
2003	1.97	7.14	2.56	11.67	3.89	N	CR	N
2004	2.43	10.40	3.23	16.06	5.35	W	CR	N
2005	1.32	4.03	1.67	7.02	2.34	D	CR	N
2006	4.30	5.70	3.38	13.38	4.46	w		N
30% chance less than	2.39	2.09	2.84	7.32	2.44			
30 Year Average	3.25	3.14	3.99	10.38	3.46			
30% chance more than	3.77	3.81	4.98	12.56	4.19			

<sup>\*</sup> Oconomowoc Weather Station (476200), Waukesha County, Wisconsin

DRY NORMAL WET

#### Farm Service Agency Crop Compliance Slides





















